

Russia's
ECONOMIC FRONT
FOR WAR AND PEACE

AN APPRAISAL OF THE THREE
FIVE-YEAR PLANS

by

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TRANSLATED FROM THE ORIGINAL
RUSSIAN MANUSCRIPT
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RUSSIA'S ECONOMIC FRONT FOR WAR AND PEACE

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PREFACE

THIS book on Soviet economy was conceived before the extension of the World War to Russia. But the extension of the war to Soviet Russia, where it has assumed proportions never witnessed before in history, makes this subject all the more timely and interesting.

The fact that the U.S.S.R. has been drawn into the war against Nazi Germany is an event of tremendous historical significance. As the developments since that moment have shown, this entrance represents a turning point in the whole war. The outlook for smashing Hitler's hordes has become more promising. Prospects for broad social and political changes have opened up before Europe and the urge toward a democratic evolutionary change in the Soviet Union has gained a more realistic foundation. It is possible to understand the high "war potential" of the U.S.S.R., which has been so surprising to many people, and to weigh its chances for a final victory only after acquainting oneself with the decisive economic changes which have taken place in the U.S.S.R. in the past quarter of a century. A study of the political, social, and cultural changes which occurred in the country during the years of the revolution will help one to understand why the workers and peasants, in spite of their frequently deep dissent from Stalin's policy, so stanchly and with such heroism fight against Hitler's motorized brigades.

A planned economy is being established in the U.S.S.R., so far in a primitive form and by imperfect means, but already in the experience of the war with Germany it has demonstrated its enormous advantages in organizing the nation's economic and military defense.

A summing up of the results of the development of Soviet economy at the beginning of the war is all the more to the point since the tempos, character, and methods of develop-

ment are in large measure to be explained by the imminence and inevitability of the war.

The Russian Revolution and the Soviet economy were born in the throes of the first World War and in large measure were shaped by that circumstance.¹ The second World War will have an equally decisive significance for the future both of the revolution and of the Soviet Union.

If the war, despite the heroic resistance of the U.S.S.R., should end in the triumph of Hitler, the further development of the system of a planned, publicly owned economy, built up during these years, will be interrupted for a long time and the U.S.S.R., together with the rest of the world, will live through a most far-reaching cultural and economic catastrophe.

If the U.S.S.R., together with England and the United States, is victorious, then along with the most tremendous political and social changes which will result from that victory in all countries, will come a substantial change in the conditions of the further development of the social order and planned economy in the U.S.S.R.: the free initiative of the workers will be strengthened and coercion will gradually die out.

If the war ends in a victory over Fascism, there will be no return to the old unregulated private economy, with its inevitable economic depressions, its social catastrophes, its outworn small states and customs boundaries. The whole world stands today before the necessity of building a new life, new relationships, a new social and economic system. The world is seeking a new mold.

At this sharp turning point it is all the more necessary to take account of the tremendous and prolonged experience gained in the economic and social reconstruction of Russia. That experience will undoubtedly serve as a lesson and an example for other countries if the defeat of Fascism gives them the opportunity to build a free, planned social economy. The study of the Russian experience should help the

¹ For a discussion of Russia on the eve of the revolution and before the Five-Year Plans see my book, *Economic Trends in Soviet Russia*. New York: Richard R. Smith, 1930.

whole world extract from it all the good that lies in it and to avoid its mistakes. The economic and social transformation of Russia should be studied in all its diversity, its failures and successes.

Has the economic order of the U.S.S.R. risen to a new, higher plane of production? Why are tremendous achievements constantly interwoven with chronic failures and breakdowns? Has the new system of planned economy demonstrated advantages as compared to the old system of private economy? Has life become better for the many millions of people, for those who carried out the revolution and in whose name, after all, these most difficult and painful changes in the entire structure of life were wrought? What is the nature of the new order of the U.S.S.R. and what are the prospects of its development? To help the reader find an answer to these questions is the task of this book.

In conclusion, I wish to express my sincere gratitude to my friends, Dr. and Miss Stone, for their skillful translation.

A. Y.

New York City
November 1, 1941

CHAPTER ONE

THE UNDERLYING IDEAS OF THE FIRST, SECOND, AND THIRD FIVE-YEAR PLANS

THE trend toward the limitation or elimination of private economy and the organization of a state-owned, planned economy set in at the beginning of the Russian revolution and was stimulated by the necessity of finding a way out of the state of economic ruin into which Russia had lapsed after the war and the Revolution.

Because of the economic and political conditions prevailing during the first years of Soviet rule, the nationalization of industry, commerce, the banks, and transportation wore a chaotic aspect. All attempts at a planned regulation of the nation's economic life had modest, limited objectives, mostly having to do with the removal of obstacles to the normal functioning of such enterprises in the fields of food supply, transportation, and manufacturing as were indispensable. In most cases they were without positive results.

However, the first attempt to develop an economic plan was made even in these early years. Toward the end of the period of "War Communism,"¹ 1917-1920, the first plan for the reconstruction of industry in accordance with the new principles was worked out by the Commission on Electrification. It proposed a radical reconstruction of the entire

¹ The years 1917-1920 are known as the period of "War Communism," when the Soviet government was simultaneously engaged in wars with the "White Army" and against foreign intervention, while attempting to establish Socialism immediately within the country.

technical and industrial economy of Russia, based on rapid electrification of the country. Lenin ascribed great importance to this plan for electrification, "GOELRO." He put through its adoption by the 8th Assembly of the Soviets in December, 1920, and in his speech expressed the opinion that the GOELRO was the "second program of the Communist party" and that "the Soviet government plus electrification" meant the realization of Socialism. However, because of the economic paralysis at the end of the period of War Communism the realization of this plan had to be postponed. The necessity of rebuilding economic life from the ground up forced the Soviet government temporarily to forgo a radical reconstruction of the economic system and instead to adopt the policy of restoring economic life on the basis of a combination of state and private economy. This period is identified as that of the New Economic Policy, or "NEP." But even in those years the Bolsheviks did not give up attempts at a planned economy.

In 1921 the "Gosplan" (State Planning Board) was created, the highest planning body of the state. During the first years it was obliged to occupy itself with perfecting its organization and with attempts to organize the economic life. Only after economic life had become somewhat orderly did the Gosplan and its various committees approach the work of planning for the future, and in 1925-1926 a plan for the following year was first worked out.

While the authors of this plan—Groman, Bazarov, Smylga, Strumilin, and others—realized that the value of their plans lay chiefly in providing a point of orientation and therefore modestly called this plan "Control Figures," (Quota) still the highest government officers from the beginning gave this plan binding effect.

In subsequent years the Gosplan began to work out similar plans, each year embracing more fully every sphere of the national economy.

Although Quota Figures during those years did not in practice direct the economic life of the country, still, aside from their theoretical interest, they undoubtedly were of great benefit.

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By 1928 the planning bodies of the U.S.S.R. had already conceived the idea of evolving a long-range plan which would be not for just a single year but should look five years ahead, since only such a comparatively long span of time could embrace plans for reconstruction calling for new construction of plants, railroads, electric power stations, etc. The Gosplan and its subcommittees first drew up drafts of five-year plans for industry, agriculture, transportation, and other branches of economy, and similar projects for the economy as a whole of the separate republics and regions of the Union, and only after that tackled the preparation of a master plan for the entire country.

In view of the appearance at this time of "right" and "left" opposition trends in the Communist party, the first few drafts of the master five-year plan were viewed with suspicion and were therefore rejected by the ruling circles of the Communist party. At this point Stalin won a victory for the course he advocated.

The leaders of the right opposition, many of whom headed the planning and practical administration work, were removed from office. The economic policy was changed, headlong "tempo" of industrialization (superindustrialization) were established, and the course was set toward the immediate introduction of Socialism.

After the reorganization of the planning bodies and the adoption, by the 16th Conference of the Communist party, of "instructions governing the preparation of the Five-Year Plan," the Gosplan in 1929 prepared two drafts for a five-year plan, a minimum and a maximum, both aiming at high rates of economic development and differing from each other on the average from 10 to 20 per cent.

The 5th Congress of the Soviets and the 16th Communist Party Conference adopted the maximum variant of the Gosplan projects (April 23 and May 28, 1929).

Since 1929, the five-year plan has become the supreme economic law, binding on all the government bodies of the Union.

Since that time the Control Figures for each year of the five-year plan have continued to be worked out as before,

but they are thought of as parts, or segments, of the five-year plan.

Although the First Five-Year Plan was not entirely fulfilled, it was considered by the planning bodies of the U.S.S.R. to have been completed by the end of 1932, and covered the period from 1929 to 1932.² The Second Five-Year Plan was prepared in 1932 and set the quota for the period from 1933 to 1937. And, finally, at the beginning of 1939 the third plan was worked out and approved for the period of 1938-1942.³

Thus, from the point of view of planning, the economic life of the U.S.S.R. can be divided into the following periods: From 1917 to 1925 the preparation of plans is largely of a theoretical and research character, and of little practical significance. From 1925 to 1928 is the period of Control Figures—yearly economic plans—which do not as yet embrace the whole national economy but already exercise a certain practical influence on economic life. From 1929 the period of the five-year plans begins, a period in which economic plans begin to play a decisive role in relation to the entire life of the country. At present the U.S.S.R. is completing its Third Five-Year Plan, interrupted and upset in the middle of its fourth year by the outbreak of the war on June 22, 1941. A planned economy has thus been in effect for a considerable time and there are ample grounds for a study of this experience.

By 1930 the Gosplan found it necessary to plan for a still longer period. The first project for a fifteen-year plan, the so-called General Plan, was evolved on the initiative of a group of Soviet economists, was animatedly discussed in the Soviet press, but got no further action at the time.⁴ Not until

² Although the First Five-Year Plan was supposed to cover the period from October, 1928, to September, 1933, yet the plan having been declared to have been "fulfilled in 4 years," the period of the First Five-Year Plan in scientific and official Soviet literature is considered to include the years 1929-1932 inclusive.

³ Because of delay in working out and agreeing on the Second Five-Year Plan the final figures for this period, commencing in 1938, were not finally issued until 1939.

⁴ L. Sobsovich, *The USSR Fifteen Years Hence*, pp. 3-5. Published by the Gosplan, 1930.

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the 18th Conference of the Communist party in 1941 was a resolution adopted directing the Gosplan to proceed with the new official project, a General Fifteen-Year Plan.⁵ However, the war with Germany which broke out in June, 1941, will hardly permit the carrying out of this resolution. The great upheaval caused by the war will no doubt lead to significant changes in the entire planning procedure.

As the years have passed methods used in planning have changed considerably. While preparing the Quota Figures and the first drafts of the First Five-Year Plan the planning experts, together with the Planning Board, had long and enthusiastic discussions about the methodology of planning, the part played by basic economic factors, the methods of determining the laws of Soviet economy, the limits of forecasting, the degree of freedom in directing economic activities, the interrelations of the plan and the market, etc.

The government in those years hesitated to be too much at variance with objective conditions and confined itself to ordering the speeding up of industrial development. But by the time they came to the preparation of the drafts for the First Five-Year Plan the directors of Soviet economy more and more lost their sense of reality.

A majority of the older economists, led by Bazarov and V. Groman, firmly defended the "genetic" method: "We are not determinists, but we believe that economic laws hold sway even in Soviet Russia. In working out the Plan our first task is to take account of reality and its laws."

Their opponents, chiefly Communist economists, led by Krzhizhanovsky, Strumilin, Grinko, and Kovalevski, advocating the "teleological" or purposive approach, took sharp issue with them, saying, "The primacy of teleology was determined for us as far back as the days of the October revolution when we acted contrary to the 'eternal laws' of capitalist development."⁶

"Our task is not to study economics but to change it. We are bound by no laws. There are no fortresses which Bol-

⁵ *Bolshevik*, 1941, Nos. 3 and 4, p. 8.

⁶ "The Five-Year Plan of Development of the National Economy," pp. 26, 73, 101. Discussion at the Communist Academy, Moscow, 1929.

sheviks cannot storm. The question of tempos is subject to decision by human beings."⁷

This dispute was resolved by order of the Central Committee of the Communist party which decreed that the plans be based on the "purposive-teleological method." The Supreme Economic Council defined objectives in the following language: "Our planning must include not only forecasting, not only the discovery of economic laws, but a creative, deliberate building of a Socialist economy."⁸

The immense amount of work done by the scientific staff of the Gosplan in the comprehensive study of the economy of the country was rejected as the "wrong class approach."

All the first seven or eight projects of the First Five-Year Plan were rejected as "minimalist." By order of the Politburo of the Central Committee of the Communist party the discussion was cut short, and a series of trials was started, on charges of sabotage, against the majority of the scientific staff of the Gosplan and the experts and engineers who had shared in the planning work. The 5th Soviet Congress approved the maximum draft for the five-year economic plan and thereby set the pace for the ensuing period, including the failures, disproportions, lack of co-ordination, and repeated crises.

Need there be any surprise that the Second and Third Five-Year Plans were drawn from the start on the basis of the purposive building of a Socialist economy?

The following principles were laid down as the basis for planning: the elaboration of general principles is not the business of the planning organs. These principles are laid down by the Central Committee of the Communist party. The task of the Gosplan is to work out concrete plans of economic activity in accordance with instructions of the Central Committee: "No bygone economic laws shall hamper constructive planning."

The success of the First Five-Year Plan and the triumph of

⁷ S. Strumilin, "Industrialization of the U.S.S.R.," *Planned Economy*, 1927, No. 7.

⁸ "Discussion of the Methodology of the Plan," *Planned Economy*, 1928, No. 11.

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collectivization have demonstrated the independence of Soviet economy of all old laws, norms and limits.

The effort to tie-in the Five-Year Plan with a single comprehensive system is a needless and harmful scheme suggested by saboteurs and taken up by babblers.

In the U.S.S.R. the plan is merely the sum of administrative orders for a given period. The Central Committee of the Communist Party must retain its freedom to manoeuvre, increasing or decreasing the tasks set, in accordance with changing conditions.

Centralization of administration, practical management and control over operations are more important for the economic plan than economic studies filling many volumes.⁹

In later chapters we shall see the effects of this conception of planning. For the present it suffices to point out that it virtually destroyed all possibility of serious planning.

Those at the head of the Soviet economy set themselves the task of evolving a system of planning for an enormous country which was just emerging from a state of collapse. The realization of so gigantic a task called for the mobilization of all the creative forces of the nation. The actual procedure was quite different. The suppression of independent thinking, the choking off of all constructive initiative, the bureaucratization of all spiritual life and its subordination to the orders of the dictatorship brought planning to a critical state.

As before, it was done on a broad scale. Thousands of people prepared a variety of reports and filled in questionnaires. All kinds of studies were made; interesting articles and books on economic and social subjects were published. As years passed, experience accumulated and the technique of management improved. Administration of various branches of industry and management of individual plants began to assume a practical character, and to grow more centralized. But the spirit of research in all this work was chained. The work was reduced to a laborious execution of tasks assigned by the superior planning bodies.

⁹ S. Strumilin, *Problems of Planning in the U.S.S.R.*, pp. 16-21. Academy of Science, 1932.

Sometimes the realization of the blind alley into which thought has landed penetrates even the minds of those in command. At the start of the Third Five-Year Plan, the lack of creative thought and the theoretical helplessness of the Gosplan became apparent. The capital of ideas accumulated by painstaking scientific work during the period when the First Five-Year Plan was being worked out, and on which the new Planning Board subsisted during the Second Five-Year Plan, proved by this time to have been exhausted. What was needed was new constructive and guiding ideas, but they were to be found neither in the meager instructions of the Central Committee nor in the guiding addresses read by Stalin and Molotov. The basic idea of the Third Five-Year Plan was reduced to this task: "to exceed the average per capita consumption level of the capitalistic countries" and "to overtake America." This was but the warming over of the unsuccessful slogans of the first five-year plan. For the third successive five-year period it would have been more natural to put forth some new constructive ideas springing from the economy of "the land which is building socialism."

The Gosplan called a joint conference of its experts and the economists of the Academy of Science for the discussion of the impending job of planning. Notwithstanding the oppressive spiritual atmosphere and "the criticism by trials and executions" that had shaken their ranks but recently, some speeches were critical of the planning work, as the following extracts will show:

We have frequently been told: we don't need philosophy, just show us you can figure and see that you complete your work on time. Now it seems that figures alone are not enough. Behind the figures there must be a clear perception of the political and economic aspects of the matter, but this requires the ability to generalize and a deeper insight into the synthetic methods of Planning . . . But the Gosplan has cultivated the idea of hard-headed practicality.¹⁰

The work of synthesizing is looked down upon; instead, the emphasis in planning is put upon figures. There is an aversion to

¹⁰ Borylin, *Conference for the Discussion of the Five-Year Plan*. Otchet Gosplan, 1937.

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facing broad economic problems. It is no accident that the word "synthetic" has lately become a "cuss-word" in the Gosplan. It is no accident that many have come to regard the whole business of planning as the sum total of the techniques for operating adding and tabulating machines. It is no accident that the most important economic problems, such as the problem of amortization, of fixed capital, of improvement of quality of our products etc. do not find their rightful place in the work of the Gosplan.¹¹

Naturally, the solution is not, as some comrades propose, to reorganize the Gosplan. What has got to be done is to make the various divisions and sections get down to the work of synthetization in the problems of national economy, to pursue systematically and doggedly the study of economic and technical problems. . . . We must radically improve the quality of the work of the Gosplan, study deeply and thoroughly questions relating to co-ordination of labor, cost of production, analysis of the financial side of industry.¹²

These extracts from the discussion of planning methods by the members of the Gosplan staff reveal the dilemma faced by the planners of the U.S.S.R. On the one hand, the work of serious planning requires deep, all-round study of various problems, ability to make generalizations and to segregate the basic determining factors governing the development of industry; on the other, deep, all-round study of reality and synthetic generalization have frequently proved to be incompatible with instructions coming from the executive organs of the dictatorship.

In planning, as in other aspects of Soviet life, the practice is to seek a way out through compromise, in a combination of study and work on one's own initiative with obedience to and praise of instructions from above.

One of the heads of the new Planning Board, S. G. Strumilin, has thus summarized the nature of planning: "We can never admit that scientific research is independent of the goal we set in advance; as regards science, notwithstanding the high estate of that august personage, she must, like every-

¹¹ Turetzky, *Conference for the Discussion of the Five-Year Plan*. Otchet Gosplan, 1937.

¹² Troitzky, *Conference for the Discussion of the Five-Year Plan*. Otchet Gosplan, 1937.

thing else, be reduced to an auxiliary role, that of a handmaid."¹³

Russian Communists call themselves followers of Karl Marx. When history afforded them the opportunity of organizing their economy they, armed with understanding of science and of economic laws, assumed a medieval attitude toward the role of science summed up in the phrase "science is the handmaid of religion." Casting aside the Marxian conception of the role played by economic laws, they substituted for it a subjective factor: the will of the Central Committee of the Communist party.

What, then, were the guiding ideas underlying the plans for the first, second, and third five-year periods?

The basic idea of all three five-year plans was the liquidation of privately owned economy, the abolition of classes, and the building of a Socialist economy in the shortest possible time.

The circumstance that Socialism was going to be built in the U.S.S.R. in isolation from the rest of the world was regarded by the Russian communists as a factor which complicated the task, but did not render it impossible. Contrary to the opinions of the right and left opposition, Stalin regarded the building of Socialism in one isolated country as feasible. In his opinion, "the U.S.S.R. has all the necessary and adequate prerequisites for the realization of Socialism." All references to the impossibility of building Socialism in one country, especially one so backward in economic and cultural development as Russia, were rejected as defeatist and counterrevolutionary.

The chief task of the First Five-Year Plan was the restoration of the national economy which had been destroyed by wars and the Revolution, and its reconstruction along lines of increased industrialization. For this reason the plan aimed at a rapid rate of industrialization. It was decided first to build up heavy industry—the construction of the means of production, leaving the production of consumers' goods to a slower rate of development. In order to ensure a rapid rate of industrialization it was decided to invest the greatest pos-

¹³ *The Five-Year Plan*, p. 77. Academy of Science, 1938.

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sible part of the national income in the construction of capital goods, the building of new plants in heavy industry. Even the First Five-Year Plan was to a great extent permeated by the idea of "autarchy," i.e., the aim of making Soviet economy independent of the rest of the world both industrially and with respect to raw materials.

The plan set up as a task "the quickest advance toward Socialism" consistent with the greatest possible increase of the country's defensive potential.¹⁴ In accordance with the policy governing the plan, the Soviet government decided to take from the peasants the enormous funds needed to carry out the proposed industrialization, spurning the "capitalist methods of appropriation of the surplus product of labor" and counting but slightly on imported capital. For this reason the Five-Year Plan contemplated in the case of agriculture only a gradual change from small private holdings to the new form of collective economy. For the same reason the Five-Year Plan proposed only a "gradual emancipation from the laws of money economy" and permitted for a long period "the coexistence of private enterprise in small-scale industry and trade" side by side with state-owned industry. With regard to material and cultural standards the Five-Year Plan defined its task as one to raise the country "to a new and unprecedentedly high level of material and cultural development."¹⁵

The authors of the Second Five-Year Plan thus formulated the ideas on which it was based: "The fundamental historic task of the Second Five-Year Plan is to liquidate completely all exploiting classes, to destroy forever the causes which breed the exploitation of man by man and the division of Society into exploiters and the exploited, i.e., to liquidate private ownership of the means of production." Actually, the main task of the Soviet government was the completion and consolidation of the collectivization of Soviet agricultural economy. Because of the resistance of the Russian peasants to "tempos" of industrialization beyond their strength, the Soviet government, contrary to what was contemplated in the

¹⁴ *The Perspective Orientation of the Five-Year Plan*, p. 3. Moscow, 1928.

¹⁵ *The Five-Year Plan for Building up the National Economy of the U.S.S.R.*, Vols. I-III, p. 124. "Gosplan." 1929.

First Five-Year Plan, began in 1930 forcible collectivization of agriculture, shooting down thousands of peasants who opposed it and exiling hundreds of thousands to the far north and to Siberia. Such methods of collectivization not only roused the peasants against the government but also disorganized all agricultural production. Under these circumstances the Soviet government in the period of the Second Five-Year Plan directed all its energies to the carrying out of the systematic collectivization of agriculture, and during the years 1933-1938 this task was completed. At the same time the process of rapid industrialization continued with a further strengthening of the tendency toward "autarchy." The Second Five-Year Plan proposed to double the level of national consumption.¹⁶

The Third Five-Year Plan set itself the task "to complete the establishment of a classless Socialist Society." It projected further industrialization of the country, aiming to "overtake and surpass the leading capitalist countries not only in technical perfection but in volume of output, i.e., to have greater production per person than they do."

As in the case of the two preceding five-year plans, the Third Five-Year Plan undertakes a further raising of the material and cultural level of the workers.

In submitting the Third Five-Year Plan, Molotov defined it as "the gigantic program of raising the level of national economy, of culture, of the general welfare. The Third Five-Year Plan is a program for a gradual transition from Socialism to Communism."¹⁷

Although none of the three five-year plans set up preparation for war as a fundamental task, yet the need of a rapid building up of the nation's defense potential was a most important consideration in prompting an exceptionally rapid, straining speed of industrialization.

¹⁶ *Second Five-Year Plan*, 1934, Vol. I, p. 307.

¹⁷ V. Molotov, *The Third Five-Year Plan*, 1939. p. 5.
(in Russian)

CHAPTER TWO

INDUSTRIALIZATION OF THE U.S.S.R. DURING 1929-1941

THE STATE OF INDUSTRY

IN THE three successive five-year-plan periods the U.S.S.R. has gone through rapid industrialization. During the years of civil war and of War Communism, Russian industry had suffered destruction to such an extent that the key industries were in a state of almost complete paralysis.

Beginning in 1921 with the adoption of the NEP, there followed a rapid revival of production. In the first few years this was brought about largely by reopening idle private plants nationalized by the government; in 1925 the Soviet government began the work of rebuilding and re-equipping old plants and building new ones; by 1927 the tempo of industrialization underwent a rapid increase and 1928 marked the inauguration of the series of five-year plans under the direction of the government.

Before discussing the great problems of Soviet economy raised by the process of rapid industrialization, it is necessary to appraise the qualitative and quantitative achievements of Soviet industry. This will be based on official data. Soviet statistics, although abundant and covering many fields, are in bad shape; the figures are incomplete, unco-ordinated, and inconsistent. In recent years, since the purge of the opposition elements in the planning and statistical bureaus, the work of these institutions has been subject to the orders of the political organs of the government. As a result, Soviet statistical data is not only inaccurate, but biased. Of late

years much important data has not been made public for reasons of military defense. Nevertheless, in spite of these faults, it is not only necessary to make use of official data as the only available data, but it is also possible to use it, since after being subjected to careful analysis, the figures correctly reflect the trend of Russian industry and the relative importance of economic developments. Naturally, those figures which are unreliable must be either rejected or, if used, their limitations clearly pointed out.

The gross output of Soviet industry is measured in rubles in terms of the 1926-1927 price level. In that period a census of industrial production was taken and prices for various industrial products were determined and fixed.

This method of measurement has definite shortcomings

TABLE 1. *Gross Output of Industry**
In billions of rubles of 1926-1927 price level

	1913†	1928	1932	1937	1940	1941	1942	1940	1940
						planned		times greater than	
								1913	1928
All Industries	16.2	18.3	43.3	95.5	137.5	162.0	180.0	8.5	7.5
Output of Producers' Goods	5.4	6.0	23.1	55.2	83.9	103.6	112.0	15.5	14.0
Output of Consumers' Goods	10.8	12.3	20.2	40.3	53.6	58.4	68.0	4.9	4.4
Percentage Producers' Goods of total	33.3	32.8	53.3	57.8	61.0	63.9	62.2		
Percentage Consumers' Goods of total	66.7	67.2	46.7	42.2	39.0	36.1	37.8		

* *The First Five-Year Plan*. 1929, V. I (in Russian), p. 131

Summary of Achievements of the First Five-Year Plan, 1933 (in Russian), p. 71.

The Second Five-Year Plan. 1934, V. I (in Russian), p. 414

Summary of Achievements of the Second Five-Year Plan. 1938 (in Russian), p. 76

Molotov, *The Third Five-Year Plan*. 1939 (in Russian), pp. 22, 23

Report by Voznesensky (Chairman, Planning Board), *Pravda*, February 19, 1941 (in Russian).

I. Lokshin, *Present Problems of the Iron Steel Industry*, Bolshevik, 1940, No. 23 (in Russian).

Planned Economy, 1939, No. 3, p. 9.

† For the territory of the U.S.S.R.

since (1) the make-up of commodities in 1940 is no longer what it was in 1926-1927; (2) the prices of 1926-1927 have not been maintained in the case of many commodities. Yet it furnishes the only available method of measurement of the growth of industry and we are therefore compelled to make use of it.

As appears from the figures in Table 1, the industrial output increased in the twenty-seven-year period from 1913 to 1940 8.5 times, while in the twelve-year period from 1928 to 1940 under the five-year plans it increased 7.5 times.

During the first five-year period of planned production the annual increase fluctuated between 11 and 27.3 per cent, in the second five-year period the average annual increase was 17.1 per cent and during the first three years of the third period, i.e., from 1938 to 1940, the average annual increase was equal to 13 per cent.¹

These rates of growth of industrial output are much higher than those in pre-Soviet Russia and considerably higher than those in other lands.

The above table shows also that the task set before the successive five-year plans to push, above all, the growth of producers' goods industries was being closely adhered to. The output of producers' goods industries increased 14 fold in the twelve years under the five-year plans, while consumers' goods production during the same period increased only 4.3 fold.

The industrial structure during this period underwent a radical change: in 1913, the production of producers' goods constituted only one-third of the total industrial output, while two-thirds was devoted to consumers' goods; in 1940 the picture is reversed, producers' goods taking up 61 per cent of the total industrial output, leaving 39 per cent for consumers' goods.

The rapid growth of producers' goods industries coupled with a slower rate of growth of consumers' goods industries will appear from an examination of the figures for individual industries in the following table.

¹ *Economics of Socialist Industry*, pp. 40, 92. Academy of Science, Moscow, 1940 (in Russian).

TABLE 2. *Output of the Most Important Industries**

Industry	Unit	1913†	1928	1929	1932	1937	1938	1940	1941	1942
									planned	
Coal	Million tons	29.1	35.5	40.1	64.7	127.1	132.9	164.7	191	230
Mineral Oil and Gas	" "	9.2	11.7	13.8	22.3	30.6	32.2	34.2	38	54
Electric Power	Billion Kwh	1.9	5.0	6.2	13.5	36.4	39.6	40.8	d	75
Pig Iron	Million tons	4.2	3.3	4.0	6.2	14.5	14.6	14.9	18	22
Steel	" "	4.2	4.3	4.9	5.9	17.7	18.0	18.4	22.4	28
Rolled Steel	" "	3.5	3.4	3.9	4.3	13.0	13.3	13.0	15.8	21
Machinery and Manufactures of Steel	Billion rubles ^a	1.5	3.8	3.3	18.1	27.5	33.6	48.4	61.0	62
Locomotives ^b	Units	418	600	602	890	1,600	1,628	d	+42% ^c	2,090
Automobiles	Thousands	..	0.7	1.4	23.9	200	211.4	d	d	400
Tractors	" "	..	1.3	..	50.6	80.3	176	d	d	d
Cement	Million tons	1.5	1.8	2.2	3.5	5.5	5.7	d	+38% ^c	10
Aluminum	Thousand tons	..	..	..	0.9	37.7	56.8	59.9	99.5	d
Copper	" "	31.1	..	35.5	45.0	100.7	103.2	166.2	216.7	d
Iron Ore	Million tons	9.2	5.7	8.0	12.1	26.0	26.5	d	d	d
Manganese Ore	" "	1.2	1.2	1.4	1.4	2.0	2.3	d	d	d
Chemicals	Million rubles ^a	450	..	619	1,970	5,940	6,715	d	d	13,400
Cotton Textiles	" meters	2,224	2,778	2,996	2,694	3,447	3,491	d	+11% ^c	4,900
Woolen Textiles	" "	103	93.2	100.6	88.7	110.8	114.	d	d	175.
Footwear ^c	" pairs	36.2	24.6	48.8	94.5	205.9	213.	d	+11% ^c	235.
Paper	Thousand tons	197	284.5	385	479	831.6	834	d	+24% ^c	1,300
Sugar, Granulated	" "	1,347	1,340	12,883	828	2,420	2,530	d	+27% ^c	3,500
Butter	" "	..	..	78	72	185	198	d	d	d
Fish, Fresh	" "	1,018	..	956	1,303	1,609	1,560	d	d	d

* Same sources as for Table 1.

† For the territory of the U.S.S.R.

^a 1926-1927 price level.^b Heavy locomotives for use on trunk lines.^c Not including rubber shoes and felt boots.^d Data not made public.^e Per cent increase over preceding year.

Table 2 reflects the rapid growth of industry. Several industries first came to life during the period of planned production and reached high levels of output. As against these positive achievements there is a negative side to be noted. The growth of individual industries is not uniform. In spite of planning, there was lack of co-ordination between industries so that some increased two to three times as compared with 1913, while others increased ten, fifteen, and thirty times. Thus the output of ore increased threefold, pig iron fourfold, steel fivefold, while machine building increased 32 fold.

Such disproportionate development of different industries is a source of repeated crises and breaks in the Soviet economy, as will be pointed out later.

The growth of heavy industries has been on a vast scale; it has exceeded the rate of growth in the United States, Japan, Germany, and other countries even in their periods of highest economic progress. Since the inauguration of planned production, new industries have sprung up in the U.S.S.R. such as electrical machinery and apparatus, precision machine tools, chemicals, automobiles, motors, etc.

The production of coal has increased sixfold; of metals fourfold; of electric energy 20 fold; of chemicals 15 fold. On the other hand, during the same period industries supplying the needs of the consumer registered a more modest growth, and some have even fallen behind at times in proportion to the increase in population during that period. This has been the case in the cotton and woolen textile industries which produced less in 1932 than in 1928.

In order to ensure the enormous expansion of the basic industries, the government made annual appropriations of billions of rubles, as called for by the plan, for capital equipment, chiefly for building new plants, factories, mines, and electric power stations.

The great importance attached by the government to the building up of industry is shown by the appropriation for industrial expansion under the plan of 45 to 48 per cent of the entire construction budget. Thus during the first five-year period (1929-1932) investments for new construction of in-

dustrial plants amounted to 31.4 billion rubles; during the second five-year period² (1933-1937) it rose to 59.9 billion, while the Third Five-Year Plan (1938-1942) calls for an investment of 103.6 billion,³ of which 53.2 billion had actually been invested during the first three years, 1938-1940.

In 1913 the aggregate fixed capital of all industrial establishments in Russia amounted approximately to 3.5 billion and in 1917 to 4 billion prewar rubles. In 1922, which marked the inauguration of the NEP after the destruction wrought by the World War, the Revolution and the Civil War, as well as a result of normal wear and tear, the aggregate fixed capital of Russian industry did not exceed 2 billion rubles. With the NEP began the growth of fixed capital, and repairs, and allowances for plant amortization were resumed. By 1929 (the beginning of the First Five-Year Plan), it may be assumed that the aggregate fixed capital of Soviet industry had caught up with the prewar figure. The aggregate plant value of pre-Soviet industry was figured in prewar rubles; that of Soviet industry in 1933 rubles (when the census of industry was taken), while investments are estimated in rubles of the current year. It is therefore impossible to bring this data together in one table. Each period must be taken separately.

According to the data of the Planning Board (Gosplan), the total fixed capital of the Soviet industry in 1928 was 10.5 billion rubles; in 1932 it was 25.5 billion; in 1937, 75.1 billion; in 1942 it is expected to exceed 150 billion 1933 rubles. This will mark the end of the five-year period, when the fixed capital of Soviet industry will exceed one-half of the total fixed capital of the country.⁴

During the years 1929-1940 there was invested in plant reconditioning and new building 152.6 billion rubles and the total for the three five-year periods will equal 194 billion rubles of current value.⁵

About 85 per cent of all appropriations for fixed capital is

² A. Arakelyn, *The Fixed Capital of the Industry of the U.S.S.R.* (in Russian), p. 71. Academy of Science, 1938.

³ Turetzky, "Socialist Capital Accumulation" (in Russian), *Planned Economy*, No. 3.

⁴ *The Second Five-Year Plan*, V. II, p. 412. Gosplan, 1934 (in Russian).

⁵ "Report of Voznesensky," *Pravda*, February 19, 1941.

allotted by the Soviet government chiefly to the metallurgical, machine building, and chemical industries. The needs of the defense industries likewise call for increased investments in heavy industries.

Most of the newly erected plants are among the largest and most up-to-date in technical equipment. Only about a third of the plants are worth less than a million rubles each; 40 per cent cost from 1 to 10 million rubles; 20 per cent from 10 to 100 million rubles each; while the value of the remaining 7 to 8 per cent cost over 100 million rubles each.

New plants play an important part in Soviet industry. As early as 1937, plants newly built or wholly reconditioned during the first and second five-year periods turned out 80 per cent of the entire production. On January 1, 1938, more than 85 per cent of all machine tools in operation had been produced since the inauguration of the five-year plan in 1928. In the first five-year period 1,500 new industrial undertakings were put in operation with an aggregate fixed capital of 15.7 billion rubles; in the second five-year period 2,100 new plants were started of a total plant value of 59.97 billion rubles; and during the first three years of the third five-year period 2,900 new plants valued at 93 billion rubles were started.⁶

Immense funds and the best organizing and technical talent were used to create war industries. To preserve military secrets no data was published as to their number and output. To ensure greater isolation the entire war industry was segregated under special Defense Industry Commissariats. The first months of the war proved that the U.S.S.R. had built up a supply of tanks, airplanes, guns, machine-guns, rifles, shells, and other war equipment in quantities far exceeding all calculations of foreign military specialists, including the German. According to reports of American, English, and German specialists, the quality of the Soviet military equipment proved to be high. If we take into account the poor quality of Soviet products generally, the high quality

⁶ *The Third Stalin Five-Year Plan*, pp. 30-32. Gosplan, 1940. *The Economics of Socialist Industry*, p. 342. Academy of Science, 1940 (in Russian). *Pravda*, March 5, 1941.

of the defense goods is an indication of the exceptional importance which the Soviet government attached to defense problems.

The number of workers in industry has greatly increased and is growing from year to year: in 1937 the number of employees was nearly 26 millions, and by 1940 it had risen to 30.4 millions.⁷

The new construction, perfect according to plan, fell far short of perfection in practice. The quality of the building materials, lack of skilled building labor, change of building plans in the course of construction, the desire to "surprise the world" by the magnitude of Soviet undertakings, all combine to reduce the efficiency of the building.

The time taken for building was too long: on January 1, 1937, there were unfinished buildings representing a total appropriated value of 11 billion rubles; at the end of 1940 such unfinished construction represented a total value of 27 billion rubles.

Some of the newly built plants, such as those in Stalingrad and Kharkov, had to be rebuilt or re-equipped after being completed. The turbine plant and the Rostov agricultural machinery plant are only in partial operation on account of technical defects. The gigantic paper mills in Balakhna and Kondopozhsk turn out paper at a cost 70 per cent in excess of that estimated in the plan. New, mechanically equipped woodworking plants—Dubrowsky, Pioneer, Mizensk—had a cost of production exceeding the cost of the old hand-working shops. In many of the newly built plants the technical equipment was so elaborate that the poorly trained engineers and workmen were unable to handle it effectively. Far more serious was the circumstance that, in spite of planning, of centralized management, of intense energy displayed by those in charge, they had not succeeded in getting the new Soviet industry to function normally.

When the heads of Soviet economy, Dzerzhinsky and Kuibyshev, said in the early years of industrialization that "our industry works poorly, inadequately and at high cost," it

⁷ S. Heyman. "The Reproduction of the Labor Force," in the magazine *Under the Banner of Marxism*, 1941, No. 3, p. 40.

was hoped that those were mere "growing pains" and that all would be remedied in the course of time. But in the latter part of the third five-year period the Central Committee of the Communist party felt obliged to make public a special resolution referring to poor work turned out by the metallurgical, metalworking,⁸ and defense industries, and transportation, as well as a general resolution about the poor functioning of all industries and transportation. At the session of the Supreme Soviet held in February, 1941, reports were submitted by Malenkov,⁹ Secretary of the Central Committee, and Voznesensky,¹⁰ Chairman of the Gosplan, referring to the necessity of promptly eliminating the serious defects in the work of the most important industries.

Lack of space prevents an account of anything more than the high lights of their analysis.

Admitting the quantitative growth of Soviet industry, they point out the following important shortcomings:

Technological processes are very frequently allowed to go on without regard to actual production . . . Idle time is as high as 20-25 per cent of the total labor time . . . 90 per cent of the workers on blast furnaces systematically fall short of their normal tasks . . . The composition of the metal is changed while it is in work process . . . The quality of the output is frequently poor, the percentage of rejects is growing . . . Customers receive steel of a quality below specifications . . . Rejects in steel and machine-making plants amounted to 2 billion rubles in 1940. In the metal working plants of Moscow alone, rejects reach 200 million rubles a year . . . Tens of thousands of tons of metal are rejected on account of poor workmanship in the steel- and metalworking plants . . . Accidents caused by carelessness . . . Ore and fuel wasted to the extent of 1½-2 times the normal quantity.^{9, 10}

Several industries, particularly the locomotive and car-building industry, the electrical, woodworking, paper, building, food and textile industries, are behind in meeting the quotas under the plan.

Such were the conclusions of the most responsible leaders

⁸ *Pravda*, June 2 and 10, 1940.

⁹ Report of Malenkov, *Pravda*, February 18, 1941.

¹⁰ Report of Voznesensky, *Pravda*, February 19, 1941.

of Soviet economy at the conference of the Communist party and the Supreme Soviet of the U.S.S.R.

Even the largest and newest plants, the pride of Soviet industry, are functioning poorly, says *Pravda* of January 22, 1941:

In so important and large a plant as the Stalingrad tractor plant the carelessness of the workers in the foundry department caused the rejection of 16,000 tons of metal. Enough metal to make 3,500 tractors . . . The plant is systematically wasting fuel, and electricity.

A report published in *Pravda* of January 24, 1941, tells another sad story:

The plant at Magnitogorsk is the largest steel plant in the U.S.S.R. It has absolutely everything to ensure even, uninterrupted, highly efficient production. Nevertheless, it fails to fulfill the tasks assigned to it by the government . . . On the whole 1940 proved to be a very disappointing year at Magnitogorsk: long shutdowns, poor technical management, poor discipline, failure to live up to programs.

Such is the state of affairs in the metal industries to which the main attention of the U.S.S.R. is being paid.

Still worse is the performance in other industries, such as the light industries and the food industries. which are considered less important.

The principal shortcoming of Soviet industry is poor quality. Even in prewar Russia the quality of manufactured products was poor and could not stand comparison with foreign goods. It became still poorer during the war and in the following years of reconstruction. This period was marked by poor training of the engineering staff and low skill of the workers, the complexity of the new equipment, the worn-out conditions of the old, inadequate building of the raw and semimanufactured materials, a decline in labor discipline and, worst of all, poor organization of labor and management. In large part this is caused by constant rushing, and efforts to beat records by turning out required quantities. In spite of all the instructions issued during the three five-year-plan periods to improve quality, in spite of punishment and

exercise of numerous controls, improvement in quality is taking place slowly. On July 10, 1940, the Supreme Soviet promulgated a decree providing "criminal responsibility of the heads of industrial undertakings and of the technical personnel for turning out products of poor quality" which had taken on a mass character.

One important object of the five-year plans was the reduction of the high cost of production. Nevertheless, in almost all branches of industry, costs are not only above those prevailing before the war, but higher than those of other countries for similar articles.

"The differential between domestic and foreign costs has greatly increased since the Revolution . . . At present the foreign price index of manufactured products is approximately $2\frac{1}{2}$ times lower than in the U.S.S.R.," declares the First Five-Year Plan. Since then matters have grown worse. This is partly accounted for by the fall of prices of manufactured products in foreign countries, caused by the depression, but the main reason is the high cost of production in Soviet plants.

The First Five-Year Plan had the task of reducing costs 35 per cent within five years. According to official figures the cost was reduced only 12.3 per cent. The Second Five-Year Plan called for a cost reduction of 26 per cent, the third aimed at a reduction of 11 per cent. In submitting the Third Five-Year Plan, Molotov said:

We still suffer from much mismanagement, wasteful expenditures, abominably great waste of raw materials, and squander much fuel and electric energy; keep our plant equipment idle for shamefully long periods, all of which means that there is no real effort to reduce costs of production and construction.

The three five-year plans aimed at the following increase of labor productivity: 26.3, 62.3, and 65 per cent respectively. The Soviet reports have published no data indicating to what extent these aims were achieved, but Molotov, Voznesensky (chairman of the Planning Board), and Malenkov (secretary of the Communist party) all assert that labor productivity has increased somewhat. . . . If the productivity

of labor has increased, in spite of mismanagement, shut-downs, rejects and increased costs, it can be accounted for only by improvement in methods of production, increased mechanization, and greater intensification of labor through the introduction of Stakhanov methods, bonus systems, the raising of hourly tasks, and so on (see Chapter VIII).

In trying to appraise the state of Soviet industry one is led to the following conclusion: the U.S.S.R. has traveled fast and far on the road of industrial development during the five-year plans. It has passed from the most backward conditions to the greatest heights of industrial progress. This progress was made with interruptions, retrogressions, and at the cost of unbelievable strain on the Russian people.

The rapid tempo of the industrial development not only exacted enormous sacrifices, but was also the cause of the uneven execution of the plans.

Table 3 shows that on the whole the quotas for the industry, set by the plans in terms of money, were filled fairly close to the plans, but the reports for individual industries show great variation in the degree of achievement.

In preparing this table only a few of the most glaring examples have been selected.

TABLE 3. *Production under the Five-Year Plans**

	Unit	1932			1937			1940	1942
		Plan	Actual	Per Cent of Plan Achieved	Plan	Actual	Per Cent of Plan Achieved	Actual	Plan
All Industries	Billion rubles	43.2	43.3	100.2	102.7	95.5	92.9	137.5	180
Coal	Million tons	75.0	64.0	85.3	152.5	127.1	83.3	164.7	230
Mineral Oil and Gas	" "	21.7	22.3	102.9	47.5	30.5	79.0	35.0	54
Electric Current	Billion kwh.	22.0	13.4	60.9	38.0	36.4	95.8	40.8	75
Pig Iron	Million tons	10.0	6.2	62.0	18.0	14.5	80.5	14.9	22
Cotton Cloth	" meters	4,700	2,720	57.9	6,250	3,450	55.2	3,490	4,900

* *The First Five-Year Plan*, p. 131. 1929.

The Second Five-Year Plan, p. 414. 1934.

Molotov, *The Third Five-Year Plan*, pp. 22, 23, 1939.

Report by Voznesensky, *Pravda*, February 19, 1941.

Our critical attitude toward Soviet statistics prevents our accepting unreservedly the data showing the degree to which

the quotas under the five-year plans had been actually achieved. We are as doubtful as to the figures showing 100 per cent attainment of the quota under the First Five-Year Plan as we are as to those under the second and third plans which purport to show that actual production came within a few per cent of the goal. However, these figures do show that the heavy industries have grown at a rapid rate, while the disproportion in the percentage rate of achievement under the plans for different industries is an indication of a fact that the planning and the operating technique in Soviet economy have not yet achieved a high level.

THE RAILROAD INDUSTRY

In view of the economic and military importance of railway transportation, we shall try to draw a picture showing the state of that industry in the U.S.S.R. Unlike other large countries, in which auto truck and water transportation are highly developed, in Russia from 75 to 80 per cent of all freight is carried by rail. There has been no change in this respect under the five-year plans and both canal and river traffic continues to develop slowly. In spite of the building of the White Sea Canal and the rebuilding of the Maryinsk and Dnieper river systems, the river transport is developing poorly as shown by the fact that in the 17 years since the adoption of the First Five-Year Plan the quantity of river-borne freight has increased only 26 per cent and in 1940 amounted to less than 10 per cent of all the freight carried in the U.S.S.R.

In view of this situation railway transportation is of exceptional importance to the entire economic life of the U.S.S.R. Railway mileage in pre-Soviet Russia was very small, amounting to 0.4 kilometer per 100 sq. km., as against 4.3 km. in the United States, 14.2 km. in Great Britain, 9.7 km. in France, 12.5 km. in Germany, 3.7 km. in Japan, 4 km. in Yugoslavia, 1.5 km. in Turkey.¹¹

One of the manifestations of the carelessness with which

¹¹ "Archiv für Eisenbahnwesen, 1932, Berlin," *Bulletin of Transportation Statistics*, published by the Commissariat of Means of Transportation (in Russian), 1933. Molotov, *The Third Five-Year Plan*, 1939, pp. 29-30.

the First Five-Year Plan was worked out is the failure to provide for the restoration and expansion of railway transportation on a scale commensurate with the enormous expansion of all industries. The reconstruction of the entire economy of the country, the erection of new plants in new regions, the building of new cities, the flow of fuel, metal, building materials called for by new construction, swelled traffic many times. The industrialization of the country which caused the movement of enormous masses of people from the country to the cities and from one part of the country to another; the collectivization of agriculture which brought about a feverish movement of millions of peasants—some from the city to their places of domicile, others from their homes to Siberia, the Far East to new settlements—all served to multiply passenger traffic.¹² As early as 1931, after two years of the first five-year period, it became clear that the plan for the expansion of railway lines must be altered in a hurry. As a result of this "miscalculation" the normal functioning of railway transportation was upset.

"The available means of transportation have set a rigid limit to the development of the Socialist Economy of our country," says *Planned Economy*, the organ of the Gosplan.¹³

At the same time, the tremendous increase of passengers completely disorganized passenger traffic.

In May, 1931, Rukhimovich, People's Commissar of Transportation, submitted a new plan for the reconstruction of railway transportation in which he stated that "the investments in railways for the first 2½ years of the First Five-Year Plan were very low and in no way commensurate with the plans for the rest of the National Economy, which as a whole were not only carried out, but in many parts were exceeded."¹⁴ The fixed capital of the railways in 1931 was only 15 per cent greater than in 1913, while the ton-kilometers of freight increased threefold during the same period. The

¹² Report of V. Molotov submitting the Third Five-Year Plan, 1939, pp. 29-30.

¹³ *Planned Economy*, 1930, No. 12.

¹⁴ Report of the People's Commissariat of Transportation, May 17, 1931.

physical equipment of the railways at this time was threatened with collapse.

The work of reconstruction of the railway industry was taken up with vigor. The entire transportation administration was dismissed and indicted, charged with willful damage to the industry. However, after a short interval, transportation broke down again. L. Kaganovich, one of Stalin's closest collaborators, was given the task of straightening out the railroad situation. A number of railroad experts from the United States, Germany, and Japan were engaged to improve the technical equipment and reorganize the administrative end.

The Second Five-Year Plan set itself the task of fundamental reconstruction of the entire railroad industry. The program included: the substitution of heavy rails for the light worn-out rails; the repairing and strengthening of the tracks, embankments and ties; repairing of old bridges and construction of new; a general reconditioning of the entire existing rolling stock; the acquisition of new high-power locomotives, freight cars of large capacity, automatic coupling and signaling; the mechanization of processes which require much labor, electrification of some of the railroads, the erection of new car- and locomotive-building plants; finally, the building of second tracks on single-track roads as well as new trunk lines, subsidiary lines, and railroad sidings.

The Third Five-Year Plan provided for the building of new lines, chiefly of strategic value, a considerable increase of rolling stock, the speeding up of electrification, and improvement of the administration and performance of the railways. The data bearing on the operation of the railroads are summed up in Table 4.

As seen from this table, railway reconstruction was not tackled until toward the end of the second five-year period, and positive results began to manifest themselves only during the third five-year period. The plan called for a modest construction of new lines, but even this modest goal was not reached. In the entire first five-year period only 1,065 kilometers of new lines were opened, while the plan called for 3,000 kilometers; during the second five-year period, new

TABLE 4. *Railroad Operations in the U.S.S.R.**

	Unit	1913	1928	1932	1937	1940	1942 Plan	Germany 1937	United States 1929
Length of RR. lines	Thousand km.	58.5	76.5	83.4	86.4	100	112	54.6	370.6
Electrified lines (included above)	Km.	..	18	18	60	1,870	3,000	..	4,323 (1935)
Number of locomotives	Thousand	16	17.8	19.5	25.2	..	32	20.7	61.3
Number of cars	"	535	510	538	684	..	875	639.3	2,377.5
Freight ton-km.	Billion ton km.	65.7	93.4	169.3	354.8	416	510	79.8	693.1
Freight carried	Million tons	132.4	156.2	260.5	..	553.6	..	499	2,584.3
Passengers carried	" persons	184.8	291.1	966.6	1,142	..	..	1,808	786.5
Speed of freight trains	Km. per hr.	13.6	13.1	14.3	19.5	22.5	..	..	25.7
Average distance of a freight run	Km.	500	597	602	710	716	..	..	538
Aver. load capacity of a freight tr.	Tons	570	817	966	1,199	1,296	..	684	1,692
Number of RR. employees	Thousand	..	971	1,526	1,512	..	..	703	958 (1938)
Annual production of locomotives	Units	664	479	828	1,214	..	..	..	1,065
Financing of RR. transportation	Billion rubles	..	..	18.7 ^a	20.7 ^b	..	35.8 ^c	..	..
Construction of new RR.	Km.	..	..	1,065 ^d	2,800 ^e	6,200	11,000 ^f	..	..

* Proceedings 17th Conference of the Communist Party, 1939

The First Five-Year Plan, pp. 64-66, 1929*The Second Five-Year Plan*, pp. 235-244, 1934*The Third Five-Year Plan*, pp. 29, 30, 1939*Statistisches Jahrbuch für das Deutsche Reich*, 1938*Statistical Abstract of the United States*, 1938.^a The Financing of Railroads under the First Five-Year Plan^b The Financing of Railroads under the Second Five-Year Plan^c The Financing of Railroads under the Third Five-Year Plan^d Built during the first five-year-plan period^e Built during the second five-year-plan period^f Built during the third five-year-plan period.

lines amounted to 2,800 kilometers instead of 11,800 according to plan. The Third Five-Year Plan calls for the building of 11,000 kilometers by the end of 1940, but according to preliminary data only 6,000 have been opened to traffic.

Most of the newly-built railroads consist of: (1) strategic lines leading to the western and far eastern borders; (2) Asiatic lines leading to new sources of raw materials; (3) second tracks of trunk lines which could not raise their carrying capacity as long as they remained single-track lines.

Notwithstanding the fact that new locomotive- and car-building plants have been added, the rolling stock of the Soviet railways is still small; however, the new locomotives are of greater power than the old, and the new cars are 2 to 2½ times as large.

The freight and passenger traffic continues to grow not only faster than the carrying capacity of the railways, but even faster than their planned increase.

The intensity of exploitation of Russian railways, the excess load which the locomotives and cars are made to carry is very great, exceeding in many respects even American figures, since a considerable part of freight and passengers in the United States is carried in motor trucks and automobiles.

Impressed by these unmistakable indications that the railroads constitute the weakest link in the economy of the U.S.S.R., the Soviet government has greatly increased its appropriations for repair work on the railway system, for new construction, and for operation. In the latter part of the first five-year period the appropriation amounted to 18.7 billion rubles, although the plan called for only 9.9 billion; in the second five-year period 20.7 billion were appropriated, and in the third 35.8 billion. The volume of metal assigned for the needs of the railroads was considerably increased.¹⁵ Much progress in the operation of railroads has been made during these years, but the reports of the chairman of the Planning Board, Voznesensky, and the secretary of the Communist party, Malenkov, read at the 18th Conference of the All-Russian Communist party in February, 1941, point to the

¹⁵ *Economics of Socialist Industry*, 1940.

unsatisfactory state of the transportation industry, particularly of the Russian railways.

According to these reports, the railways are not performing according to true schedules; goods do not arrive on time; shipments are sent to the wrong address; locomotives and cars remain idle above a normal allowance; much of the planned track has not yet been relaid. Moreover, industrial and planning authorities are blocking the roads with wrong shipments.

Many railway junctions are clogged by freight that is being unloaded by hand. Some large stations are blocked with empty cars and are not equal to the task of making up trains and sending them through.

The 18th Conference of the Communist party and the Supreme Council of the Soviet, meeting in February, 1941, under the pending threat of war, voted an extraordinary appropriation of 6½ billion rubles and instructed the railway administration "to put the railways, the rolling stock and railway junctions in perfect order in the shortest time."

During 1939-1941 much work had been done in the matter of putting the transportation system in good order and of its rapid expansion, but there is a lack of reliable data which could be analyzed for help in the appraisal of the economic condition of the U.S.S.R. However the past four months of the war with Germany have shown that the work of expansion and improvement of the railroads, undertaken in the last few years, has produced positive results. They have proved capable of adequately carrying out the tremendous work of transportation of the army, supplies and munitions.

PROBLEMS OF INDUSTRIALIZATION

The administrators of Soviet industry point with pride to the fact that no other country can show such a rapid growth of production. Economists who critically examine Soviet economic policy usually lay greatest stress on proving that the five-year plans remain unfulfilled and that the rate of growth of Soviet industry is not so great as pictured by official data. It is true that Soviet statistics are biased and the authors of

official reports frequently conceal the true state of affairs. The First and Second Five-Year Plans and the plans for single years and still more the plans for separate industries frequently fall short of fulfillment.

But if, instead of analyzing separate industries or brief periods of time, the plans are studied in their broad aspects, they are found to be fulfilled to a large extent and the rates of growth to be high (see Tables 1-3).

Soviet planning and methods of industrialization should be criticized not on the ground that the rates of industrial growth are too low, but that they are set too high.

More to the point than debate over whether the plans have been fulfilled 100 per cent or 80 per cent is the fateful circumstance that they are so ambitious that even 80 per cent of their fulfillment puts an unbearable burden on the people.

The tempo of industrial growth is naturally determined by the rate of growth of investments in new construction. The question of the relative shares of the national income which should be invested in new plants, in heavy industries, and for the manufacture of articles of consumption respectively is fundamental and decisive for the entire Soviet economy. The nationalization of the whole production system, the concentration of the entire accumulation of capital in the hands of the state, creates an enormous advantage for Soviet economy, since this makes it possible to direct in planned fashion a definite share of the national income into new plant construction without scattering capital for objects which are casual or not of first importance, as is frequently the case under the system of private capital.

Only through this circumstance has it been possible for the Soviet government to attain such unprecedented rates of growth not only during the period of restoration of industry (under the First Five-Year Plan), but even in the period of reconstruction (under the Second and Third Five-Year Plans).

If the Soviet government, after reaching a certain degree of revival and expansion of industry, had ceased the abuse of its monopolistic power and had limited the share of national income destined for capital investments to a figure which,

though higher than in privately owned industry, yet was not so large as to condemn the people to a chronic lack of the most necessary articles of consumption, the advantages of planned and state-owned economy would be manifest to wide circles of people. But such was not the economic policy of those in power. Prompted partly by the needs of national defense but chiefly from a desire to industrialize and socialize the country in the shortest possible time, those in control of the Soviet economy used their unlimited power to increase from year to year the share of the national income which was to be used for long-term investments. The tempos and the methods by which the government is bringing about industrialization prove to be unbearable for the country.

The highest increase of industrial output in the leading countries was as follows: in the United States a 120 per cent increase in the ten-year interval 1880-1890; in England a 29 per cent increase in the ten-year period 1860-1870; in Germany a 64 per cent increase in the ten-year period 1880-1890, and 81 per cent in the nine-year period 1914-1923; in France a 35 per cent increase for the ten-year period 1900-1910, and a 120 per cent increase in the ten-year period 1920-1930; and in Russia a 150 per cent increase for the ten-year period 1890-1900, and 68 per cent¹⁶ for the four-year period 1910-1913.

An increase of 650 per cent, such as took place in Soviet Russia in the twelve-year period from 1928 to 1940, is something that has no precedent in the economic history of the world.

Such a phenomenal increase is eloquent testimony of the exceptional potentialities of a planned public economy, but at the same time it reflects the unheard-of strain which the population of the U.S.S.R. had to undergo. Such a tempo had to be sustained by one generation, the same generation which had gone through the World War and the Revolution.

The Soviet government extracted from the population, for purposes of long-term investment, a larger share of the national income than had been attempted in any country in

¹⁶ *World Economic Crises*, A study of the Academy of Science, Vol. I, pp. 492-494, 496-498, 500-502, 504-508. Moscow, 1940.

Europe or in America. In the 5-year period preceding the first World War long-term investments in Russia amounted to 6.1 per cent of the national income.¹⁷ In the United States investments during the 10-year period 1922-1932 averaged 9 per cent of the national income; in the five-year-plan periods long-term investments in the U.S.S.R. were equal to 22.6 per cent in 1929, 26.9 per cent in 1932, 26.4 per cent in 1937, and the plan called for 28.3 per cent of the national income for 1942.¹⁸

The Soviet estimates of the national income are far from accurate but the figures cited here show, after all possible corrections, how great the strain has been in the U.S.S.R.

In the years of the five-year plans the country has gone through a rapid process of industrialization. From an economically backward, largely agricultural country, Russia has become both an industrial and an agricultural country. In 1931 only 3.4 per cent of the gainfully employed population were employed in large-scale industry; in 1937 over 30 per cent of the gainfully employed were engaged in industry. While in 1913 60 per cent of the national income was derived from agriculture and only about 40 per cent from industry, the ratio was virtually reversed in 1940: 70.0 per cent of the income came from industry and only 29.3 per cent from agriculture.¹⁹

All large-scale and medium-sized industries and the overwhelming part of the small trades have been nationalized and are owned and operated by the government. At great cost, and with a total disregard for the starvation and dying off of the population, the Soviet government has changed the whole character of the country's economy.

Contemporary Russia has huge mines, plants, and factories with the latest equipment. It has created its own machine and toolmaking industry, it has developed or newly

¹⁷ Professor B. Grinevetsky, *Post-War Prospects of Russian Industry*, p. 202, 1919.

¹⁸ *The First Five-Year Plan*, 1929, Vol. 2, p. 38. *The Second Five-Year Plan*, 1934, Vol. 1, p. 427. *Problems of Economics*, 1940, No. 10, p. 67.

¹⁹ U.S.S.R., *the Land of Socialism*. Gosplan, 1939. *The Economics of Socialist Industry*, 1940, Report to the 18th Conference of the Communist Party, 1941.

created the most important branches of industry; new industrial regions have come to life and are rapidly growing. Industries which never existed before in Russia have sprung up and taken root, such as the production of steel alloys, electric machinery and apparatus, manufacture of motors, automobiles, machine tools, aniline dyes, artificial silk, heavy chemicals.

At the time of the First Five-Year Plan, Russia was obliged to draw upon Germany, England, and the United States for elaborate equipment and fine apparatus. But year by year Russia learned to make more and more complex machinery and apparatus and during the past few years her dependence on foreign importations has been greatly reduced. As shown by the test of the Russo-German War, the U.S.S.R. has created a great war industry during the years of the five-year plans. Newly built steel and nonferrous metal plants have furnished metals necessary for guns, tanks and ammunition. Airplanes, tanks and weapons have been produced in quantities exceeding all estimates and competing in quality with the products of Germany, England, and the United States.

Russia is one of the few countries which has great industries supplied by sources of raw materials and fuel within the country. This is a matter of great importance. In the last few years Russia has almost ceased to import nonferrous metals; has greatly reduced the importation of rubber, having established the manufacture of synthetic rubber and greatly expanded the planting of rubber-bearing plants; and has completely stopped the importation of cotton,²⁰ having greatly increased the planting of cotton within her own boundaries.

At present, toward the end of the third five-year-plan period, Russia is among the foremost industrial countries, with up-to-date plant equipment in point of quality and age. According to Soviet reckoning, the U.S.S.R. is now among the leading countries in the production of pig iron, machine

²⁰ In 1940 and 1941 the U.S.S.R. resumed its purchases of nonferrous metals and rubber in foreign markets. This caused England to assume, prior to Russia's entry into the war with Germany, that the purchases were being made on behalf of Germany. The U.S.S.R. denied this, insisting that the purchases were for her own needs in view of the growing threat of war.

building, the production of automobiles, aluminum, electricity, coal, etc. In some of the most important industries the U.S.S.R. has surpassed such countries as France, Germany, and England in volume of output. But these estimates are dictated by a desire for setting national records, often illusory, and give an idea of the magnitude of the U.S.S.R. output, but not of its economic potentialities.

For a correct understanding of the degree of industrialization attained it is necessary to bear in mind another circumstance. At the time of the first two five-year plans the leaders of Soviet industry implanted in the minds of the people a wrong conception of the degree of industrialization attained by Russia in comparison with other countries. It was sufficient for the U.S.S.R. to exceed the output of some country, for a new victory to be proclaimed, whereas the mere fact of exceeding the output of even a highly developed industrial country, whose population is several times less than that of the U.S.S.R., by no means proves the superiority of the U.S.S.R. It was only at the time of the Third Five-Year Plan that the realization of this elementary fact came to be commonly recognized, after Stalin and Molotov had made clear in public statements the meaning of the terms "catching up and overtaking."

Said Molotov in submitting the Third Five-Year Plan and setting the goal of "catching up and overtaking the United States":

We are greatly behind in per capita production of electricity, pig iron, steel, coal, cement. Yet, without a high level of development of these industries it is impossible to secure the complete development of machine-building, the defense industries, transportation, and the building of plants and factories . . . The U.S.S.R. is greatly behind in per capita production even of such products as cotton and woolen fabrics, footwear, sugar, paper, soap, etc.²¹

A great advance over pre-Revolutionary Russia has been made during the years of the five-year plans, but the per

²¹ Molotov's speech in submitting the Third Five-Year Plan, 1939, pp. 14-15.

capita production is still far behind that of the great civilized countries, as shown by a few examples in the following table:

TABLE 5. *Comparative Per Capita Production**

Products	Unit	U.S.S.R.	United States	Germany	England	France	Japan
Electric Power	Kwh	215	1,160	735	608	490	421
Pig Iron	Kilo	86	292	234	183	189	30
Steel	"	105	397	291	279	188	62
Coal	"	757	3,429	3,313	5,165	1,065	643
Cement	"	32	156	173	154	86	60
Cotton Cloth	Sq. m.	16	58	..	60	31	57
Footwear	Pair	1	2.6	1.1	2.2	..	..
Paper	Kilo	5	48	42	42	23	8
Sugar	"	14	12	29	8	21	17
Soap	"	3	12	7	11	10	..

* Figures for the U.S.S.R. are for 1937. For the other countries they are as a rule for 1929.

It is enough to examine Table 5 to see how backward Russia still was at the end of the second five-year period both technically and culturally. During the third five-year period there was some improvement in the metal industry, while the other industries remained at the same level. The goal of "overtaking the United States" can hardly be accomplished in the next ten or fifteen years, but the progress made during the years of the five-year plans has been great. In 1913 the Russian per capita production of electric energy was $\frac{1}{17}$ of that in the United States and one-fifth of that in Germany; in 1937 it was 5.5 times less than in the United States and 3.5 less than in Germany. In 1913 Russia's per capita production of coal was $\frac{1}{26}$ of that in the United States and $\frac{1}{31}$ that of England, while in 1937 it was only $\frac{1}{6}$ of that in the United States and $\frac{1}{7}$ that of England. In steel, Russia's per capita production in 1913 was $\frac{1}{11}$ that of the United States and one-eighth that of Germany, while in 1937 it was $\frac{1}{4}$ that of the United States and $\frac{1}{3}$ that of Germany.

On the other hand, in the case of consumers' goods there is no such progress. Russia continues to have a per capita

production of cotton cloth only one-fourth that of the United States, England, or Japan and one-half that of France. Its per capita production of paper continues to be $\frac{1}{8}$ or $\frac{1}{9}$ that of the United States, England and Germany.²²

These figures furnish a striking illustration of the backward state of pre-Revolutionary Russia and of the great progress made since. They also give an indication of the many complex and difficult problems to be solved before Soviet Russia can really catch up with the leading industrial nations of the world.

Interesting changes have taken place in the organizational structure of the industry. The U.S.S.R. is the only country in the world in which entire industries are administered from one center. The process of concentration of workers and of production in large plants has gone far. Pre-Soviet Russia, as a country in which the capitalist system was still young, had attained a high degree of concentration. Plants employing over 1,000 workers each had more than 38.2 per cent of all workers in 1912. By 1935 the large plants employing over 1,000 workers each had 50.4 per cent of all the workers and 68.8 per cent of all the horsepower. Even in so advanced a country as the United States the plants employing over 1,000 workers each had in 1929 only 24.4 per cent of all the workers and 27 per cent of all the horsepower. Measured in terms of output, the degree of concentration appears even more striking: 2.6 per cent of all the plants turned out 56.8 per cent of the entire production.²³

During the period of construction there was a general tendency among planners to build everything on a large scale, often without regard to the technical requirements and to economy of production. The project of the Third Five-Year Plan contains a warning against "excesses of the gigantic-scale mania" in planning new enterprises.

In the last few years a slow rise has begun in the pro-

²² Author's estimates. *Statistisches Jahrbuch für das Deutsche Reich*, 1933-1938. *Annuaire Statistique de la Statistique Générale de la France*, 1938.

²³ *Statisticheskoy Sbornik*. Data of the Administration of Factory Inspection (in Russian), St. Petersburg, 1913.

The Economics of Socialist Industry (in Russian), p. 237, 1940.

ductivity of labor, although the progress in this respect has not been great. The rise in productivity has been due not so much to improvements in methods of production as to speed-up of labor. In 1938 average labor productivity for all industries was 3.7 times as great as in 1913 and 2.2 times as great as in 1929 (for details see Chapter VIII on Stakhanovism).

The figures cited here show that since the adoption of the five-year plan Russia has undergone a radical economic transformation and now has a highly developed industry. To deny these facts would be a great mistake. Among anti-Bolshevik journalists and economists there is a widespread tendency to interpret everything which happens in Soviet economy as a manifestation of economic disintegration. They deny that there has been a growth of industry in Russia, they question the value of new construction, they are ready to picture everything that is being done for the realization of the five-year plans as decorations of "Potemkin villages." They try to prove that there has been no increase in productive power in the U.S.S.R. From the undeniable fact that the quality of Soviet products is poor (see preceding section) they draw the conclusion that all goods produced in Russia are unfit for use and that newly built plants are generally incapable of turning out products of good quality.

Such an attitude is not helpful to an understanding of what is taking place in the U.S.S.R. Though at great cost and with much waste of capital, new gigantic production facilities have nevertheless been developed under the five-year plans. The expenditure of capital is often out of proportion to the effectiveness of newly built tractor plants, blast furnaces, or electric power stations, still the new plants are turning out products of which the country is badly in need, and with gain in experience and improvement of methods the output will increase and waste decrease.

The productive forces of Soviet Russia have grown very rapidly under the five-year plans even though painfully and at excessive cost. Russian industry is advancing unevenly, joltingly, disproportionately. In spite of the existence of a plan, badly needed coal mines are opened and operated slowly. At the same time gigantic plants are erected when

there is no immediate need for their products. Manufacturing industries are developed with headlong speed while transportation remains at the pre-Soviet level. New plants are equipped with machinery and apparatus which the workers are not qualified to handle either by education or by technical training. Plants manufacturing finished products are not built in proper proportion to those making semimanufactured goods. Thus, in the winter of 1939-1940 plants producing metals had to reduce their output for lack of ore, lime, refractories. They either shut down or worked from hand to mouth. Industrial operations are frequently subordinated to politics. The indictments, trials, imprisonment and executions suffered by the outstanding leaders of Soviet industry in the years under the First and Second Five-Year Plans, followed by general purges which disorganized the management of industry for a long time, furnish the most striking illustrations of the political methods of the Soviet dictatorship.

The cost of production in Soviet industry is much higher than that of foreign countries or of Russia before the first World War. Because of its monopoly of foreign trade, Russia is protected from any competition of foreign goods, nor does the high cost of production of Russian industry interfere with the export of its products. Holding in its hands all production and all the export trade, the Soviet government fixes two sets of prices for its products: a high one for the internal market and a low one for the foreign.

The high cost of production is caused by poor organization, low productivity, inadequate work-load, and low skill of the technical and labor personnel.

The high cost of production is caused in no small degree by high administrative overhead and high rates of profit and amortization. But no matter how high the cost of production of manufactured goods, that is not what determines the high selling prices. The cost of production of manufactured goods is 30-50 per cent higher than in European countries, while their selling price in Russia is 100-200 per cent higher.

High prices are determined by (1) a high markup of the gross profit at every consecutive link of the administrative

and commercial chain and (2) by a special sales tax which the government adds to the price in its monopolistic control of trade (see Chapter VI, Finance). The high prices condition to a large extent the high tempos of industrialization. The Soviet government aims at stimulating maximum accumulation of capital through the instrumentality of high prices.

But we need not think of productive forces as merely the inanimate means of production, such as buildings, machinery, tools, raw materials. One of the essential elements of productive forces is the working class. The worst aspect of Soviet industrialization is that the material means of production are to a considerable extent built up at the cost of exploitation of the strength and energy of the Russian worker.

But perhaps the privations which the Russian people are now bearing are the inevitable result of any industrialization. It may be the inescapable price of the rise from the level of a backward economy to that of an advanced industrial country; perhaps the nation had to be "starved into industrialization." We do not admit the correctness of this thesis. It is a historical fact that a considerable number of capitalistic countries paid for the period of original capital accumulation by the impoverishment of their masses. But it is not permissible to draw an analogy between Russia at the beginning of the twentieth century and England of the early eighteenth. Russia has long outlived its period of original accumulation of capital, when the first factories and mills were built by the slave and semislave labor of former peasants in the latter half of the nineteenth century.

Post-Revolutionary Russia did not in the least need to use the predatory means of the original accumulation of capital to build up her industries. She had a young but well-equipped industry, the country had sufficiently large financial and industrial capital; large reserves of labor power had been developed in the prewar period and supplemented by a constant flow from the country districts. Moreover, in contrast to other industrial countries (except the United States), Russia had her own internal, constantly growing market and her own enormous sources of raw materials.

The path to industrialization by way of impoverishment of her population was not at all an economic necessity. The new Russia, which had concentrated in the hands of the government all the key industries, armed with an economic plan could have solved her industrialization problems by other methods. It could have been based on the growth of productivity and well-being of a peasantry emancipated by the Revolution, and on the rise of the purchasing power of the whole population. The nationalization of the large-scale industries coupled with the economic plan would have eliminated the conflicts of privately owned economy. The concentration of the efforts and finances of the state on key industries, coupled with encouragement to small businesses under the control of the state, would have resulted in a more rational organization of production in those industries, with less breakdowns and growing pains, and thereby in a rise of the general economic level of the country. This would, of course, have been a slower method than that chosen for industrialization under the successive five-year plans but it would have ensured greater economic stability. And on the social side it would undoubtedly have meant less suffering for the Russian people.

But even more fallacious are the opinions of those economists who insist that Soviet industrialization is but a folly of the Bolsheviks who are fanatics of large-scale industry, that most of the newly built plants stand idle, getting covered with moss, and that they will but serve as monuments to the madness of superindustrialization. True, certain individual plants built under the five-year plans may not be fully utilized. But experience has shown that most of the newly built plants are already in operation and are economically productive, although their management is still at a low level.

So big a country as Russia needed to be industrialized. A proper understanding of the best interests of the country in our epoch of wars, political crises, economic blockades, demanded it. It was called for by considerations of the country's future and the potentialities of its development.

The Soviet government, having correctly chosen its task,

proceeded to carry it out by cruel, conflicting, and uneconomic methods and at tempos which have already cost the country enormous sacrifices and for which it will have to pay retribution for many years to come. Russia was made to travel painfully the uneconomic road of headlong industrialization. Part of the nation's labor spent in the creation of new enterprises was wasted unproductively. But that period is now over. On the whole, the economic potential of contemporary Russia is much higher than it was before the five-year plans. The obstacles to a further and healthy growth lurk not in the fact that she dared to build an "economic order without the private boss," but in the policy of dictatorship and in that international atmosphere which has been created in Europe by the Hitler policy of aggression. The war has put a stop to all normal economic life in Europe, including the U.S.S.R. It has wrought economic destruction on a colossal scale; it has subordinated all interests of national development to one task—that of national defense. It has predetermined for many years to come the rebuilding aspect of the economic activities of European countries, even in the event of victory over Nazism.

CHAPTER THREE

THE RECONSTRUCTION OF THE AGRICULTURAL ECONOMY

THE ORGANIZATION OF AGRICULTURAL CO-OPERATIVES (KOLKHOZES)

THE war and the Revolution wrought great havoc with the agricultural economy of Russia. During 1918-1920, the years of War Communism, the policy of "Food Collections" (which amounted to seizure by the government of almost all that the peasants produced) brought about a considerable curtailment of production. Agriculture stagnated along with the general stagnation of the economic life of the nation.

However, with the adoption of the NEP in 1921-1925, after the peasants had been given the right to dispose of their own produce, there ensued a rapid revival of agriculture. The peasants resumed work, and trade in farm products revived. Market conditions in the first years of the NEP were favorable to the peasants. The demand for cereals and agricultural raw materials was assured by the rapidly growing needs of the urban population and the progress of industry. Aside from a small number of state farms (sovkhozes) and a few thousand collective farms (kolkhozes), all agriculture continued to function on a basis of private ownership.

The Revolution, having destroyed the ancient patriarchal way of life, removed psychological barriers and gave an impulse to the change from the "three-field system" to a system of multiple-crop rotation, from the primitive wooden plow to the modern steel plow, from scant fertilizing with manure to full chemical fertilization, from following the ad-

vice of elders to work according to advanced agricultural methods. At this time the rural population of Russia manifested a great readiness to adopt new agricultural methods and was eager to return, under new peaceful conditions, to its accustomed work on the land. The Revolution raised the general cultural level of the peasants, broadened their horizon and awakened new wants.

With lightning speed the peasant economy healed its wounds, inflicted by the Civil War and by repeated confiscations of grain and other agricultural products, and began to manifest a demand for agricultural machinery, implements and manufactured articles, in a volume that could not possibly be satisfied. However, new restrictions on the right to sell their products on the free market, high quotas of obligatory delivery of agricultural products to the government at low prices, limitations on the size of peasant holdings, on the right to rent land or hire help, all brought about—by 1927-1928—a decline in the acreage sown, the quantity raised, and especially a reduction of products available for the market. Agricultural economy had clearly come to an impasse which was immediately reflected in the whole national economy.

The country stopped furnishing food and raw products in adequate volume to the city and industry, unless it received equivalent amounts of manufactured goods. The Soviet government faced the dilemma either of yielding to the demands of the peasants and allowing them to expand their farms on a basis of private ownership and working for the market or of seeking another way out of the impasse so ruinously reacting on the whole country.

After some hesitation the Soviet government decided to take the path of collectivization of agriculture and liquidation of individual peasant holdings. The First Five-Year Plan was cautious in marking out this path. It projected a gradual absorption of individual farms by collective ones. It emphasized: "We do not propose to wage war against the well-to-do farmers who do not exploit others, as we do against the kulaks."¹ In summing up the plan its authors concluded that

¹ *The First Five-Year Plan*, p. 329, 1929.

"the privately owned sector of the agricultural economy will prove to be the basic producer of agricultural products (accounting for at least 75 per cent of the marketable produce at the end of the five-year period under the most successful outcome of the projected socialization). That is why the national economic five-year plan must give its full attention to the question of providing incentives for these farmers to stimulate their productive efforts."

Nevertheless, as early as 1930, i.e., the second year of the First Five-Year Plan, there began a mass confiscation of the property of all well-to-do peasants, including those owning one horse or two cows, on the ostensible ground that they were "kulaks," and their compulsory enrollment in co-operatives, or so-called "kolkhozes," for the joint performance of agricultural work. The years 1930-1933 were the most violent period of compulsory collectivization. Thousands of peasants resisting collectivization were shot, millions were exiled from their villages to the far north. An enormous amount of agricultural property was destroyed in those years, including nearly half the draft animals and productive livestock.

By the end of the first five-year period, the transformation, by such brutal means, of the individual agricultural economy into collective farms was in the main completed. During the second five-year period, this process of compulsory collectivization was brought to conclusion. The Soviet government poured into the country a part of the financial resources it had previously withdrawn, equipped the kolkhozes with machinery and agricultural implements, and exerted its full powers toward the revival and reconstruction of agriculture on a new basis. By the end of the second five-year period a measure of success had been attained. During the third five-year period the process of revival and growth of collectivized agriculture continued.

Before attempting to appraise the results of collectivization, and to throw light on the problems engendered by so rapid a reconstruction of the agricultural economy, it is necessary to outline the present state of agricultural economy in the U.S.S.R. as the third five-year period draws to a close.

Instead of 26 million individual farms, mostly small or

even tiny, there are at present 242,000 kolkhozes, embracing 93.5 per cent of all the peasant farms and 99.3 per cent of all land under cultivation. The kolkhozes have 117.2 million hectares (approximately 289 million acres) of arable land; 3,960 sovkhoses have 12.4 million hectares (approximately 30 million acres), and 1.3 million individual farmers have 900,000 hectares (about 2,223,000 acres) of arable land.²

The basic agricultural problem in Russia was to increase the acreage under cultivation, to raise the total yield and the yield per acre, and to improve the methods of agricultural production.

TABLE 6. *Land Under Cultivation Under Grain and Industrial Crops**
(In million hectares—1 hectare = 2.47 acres)

Crops	1913	1928	1932	1937	1938	1941 Planned	1938 Crop as Per Cent of	
							1913	1928
<i>All land under cultivation</i>	105.0	113.0	134.4	135.3	136.9	157.0	130.4	121.1
<i>All grains:</i>	94.4	92.2	99.7	104.4	102.4	111.1	108.5	111.1
Wheat (winter and spring)	31.7	27.7	34.5	41.4	41.5	..	130.9	150.0
<i>All Industrial crops:</i>	4.5	8.6	14.9	11.2	11.0	12.0	244.4	126.7
Cotton	0.7	0.97	2.2	2.1	2.1	..	300.0	216.6
Flax	1.0	1.4	2.5	2.1	1.9	..	190.0	135.7
Sunflower	1.0	3.9	5.3	3.2	3.1	..	310.0	80.0
Sugar beets	0.6	0.8	1.5	1.2	1.2	..	200.0	150.0
<i>Vegetables, melons and potatoes</i>	3.8	7.7	9.2	9.0	9.4	..	247.4	122.0
<i>Feed crops</i>	2.1	3.9	10.6	10.6	14.1	..	671.4	361.6

* Figures based on *Areas Under Cultivation in the U.S.S.R.*, p. 5. Gosplan, 1939. *Agricultural Economy*, pp. 15, 16. The Academy of Science, 1936.
Report by Stalin to the 18th Conference of the Communist Party, 1939. *Pravda*, February 19, 1941.

As the figures show, there has been an increase in area under cultivation for all crops. Of the grain crops the wheat area shows the greatest increase. Feed and industrial crops

² *The Socialist Agricultural Economy of the U.S.S.R.*, p. 15. Moscow, 1939.

have grown fast, both absolutely and relatively, industrial crops having increased from 4.3 per cent of the total land under cultivation in 1913, to 8.0 per cent in 1938, and feed crops from 2 per cent in 1913 to 10.3 per cent in 1938. This substantial change in the crop structure of the country has taken place chiefly in the last few years, owing to the five-year plans, and after the country had recovered from the destruction wrought by forced collectivization. The area under cultivation continued to grow in 1939 and 1940 and, according to Voznesensky's report, reached 150 million hectares in 1940.³

However, the rapid growth of cultivated areas was not accompanied by an increase in yield until the last few years. The yield had always been low in Russia. Low yield, a clear indication of backwardness, was characteristic of prewar Russia. It was lower than that of any European country, lower than in Hungary, Bulgaria, Poland, and on a par with India and Korea.

At the beginning of Soviet rule the yield of individual farms was even lower than before the war, because the peasants lacked the means to make the necessary capital investments. Nor did they have the incentive to invest, since the government forcibly seized nearly all the grain they raised. The customary redistributions of land, increased by migrations of the peasant population during those years, and the necessity of providing land for young families setting out to farm for themselves were additional factors militating against increased yields.

With the adoption of general collectivization the situation changed radically. All the land was cultivated in common by the members of the kolkhoz. The resulting produce, after payment of its share to the state and after deductions for obligatory funds, was divided among the members in proportion to the labor each had put in.⁴

³ "Areas under Cultivation in the U.S.S.R. in 1938," *Pravda*, February 19, 1941, p. 4.

⁴ The distribution of income and the payment for labor by members of the kolkhoz is made in proportion to the labor days contributed by each member. The labor day is the unit of measurement of labor. Each working member of the kolkhoz is credited daily with $1/4$, $1/2$, 1, 2 or 3 labor days,

The custom of periodically reallotting the land was stopped. Gradually, the "alternate strip" and "multiple strip" systems (i.e., the allotment to each individual of strips of land scattered over considerable distances—caused by the effort at a fair division of land of varying degrees of fertility) were also abolished. All the land was pooled. The multiple-crop system became possible. The government realized that in order to improve agricultural production an investment of capital was required. A constant stream of tractors, threshing machines, combines, mowing machines, binders and other large machines poured in, thus mechanizing agriculture. Natural and artificial fertilizers were applied. In 1935, in order to assure the kolkhozes that no more of their land would be handed over to the sovkhoses, a decree was issued securing possession of the land by the kolkhozes "forever," in accordance with certain grants issued to the individual co-operatives.

The most modern methods of scientific agriculture were applied on the new large-scale kolkhoz farms. In 1910, of the 17,000 farm implements for tilling the land in Russia only one-third consisted of steel plows, the rest being made of wood (many of them were crooked sticks, the most primitive implement used by savages) and 98 per cent of all harrows were of wood. Collectivization changed this radically. In 1910, 6 rubles' worth of agricultural implements was used per hectare sown by the peasant; in 1930 the value was 19 rubles, and by 1938 it was 65 rubles. The value of the means of production in the kolkhozes rose from 7.5 billion rubles in 1932 to 23.8 billion in 1937.⁵

The number of motors used in agriculture increased considerably. In 1916, 99.2 per cent of all the power used in

depending on the kind of work, the skill of the worker, the quality of the performance, and other factors. The value of a labor day is equal to the income of the kolkhoz (subject to distribution on the basis of labor days) divided by the total number of labor days. Therefore the labor day of one kolkhoz does not equal that of another, and in the same kolkhoz the labor day of one year may be greater or less than in another.

⁵ *Kolkhozes in the Second Stalin Five-Year Plan*, 1939, p. 13. *Agricultural Economy*, pp. 194, 195. The Academy of Science, 1936. *Socialist Agriculture*, p. 23. Gosplan, 1939.

agriculture was derived from draft animals, and only $\frac{1}{10}$ of 1 per cent came from tractors and internal-combustion engines. By 1932 power from draft animals had declined to 77.8 per cent, and in 1937 to 34.3 per cent of the total, while the rest came chiefly from tractors, combines, and trucks.⁶ All the processes of agricultural production—plowing, sowing, reaping, threshing and conveying—are now accomplished largely by mechanical means. At the same time energetic measures were taken to improve methods of production in agriculture: gradually crop rotation was introduced, there was a widespread adoption of the system of breaking fallow land before the spring thaw, repeated fertilization of the soil, the sowing of the best selected seeds, combating blights, and so on. As a result of all these measures, there was a considerable increase in productivity, first in grain and later in industrial crops.

TABLE 7. *Yields of Grain and Industrial Crops*^a
(In centners per hectare—1 centner = 220.46 lbs.)

Crops	1913	1928	1932	1937	1938	1940	1940 as Per Cent of 1913
<i>All Grain Crops</i>	8.5	7.9	7.0	11.5	9.3	9.5	111.7
Winter wheat	10.4	7.8	7.4	13.7	11.6	11.7	112.5
Spring wheat	7.6	8.0	5.1	10.1	8.9	9.1	119.0
<i>Industrial Crops</i>							
Cotton in irrigated regions	10.8	8.5	6.9	14.5	14.3	14.2	131.5
Cotton in other re- gions	10.8	8.0	6.0	12.2	11.8	12.0	111.1
Sugar beets	168.0	131.8	64.3	183.1	139.0	..	82.7*
Potatoes	76.1	81.8	70.6	95.6	90.6	..	117.7*
Flax fiber	3.3	2.4	2.0	2.7	2.9	2.5	88.0
Sunflower	6.5	5.4	4.3	6.4	6.2	..	92.3

* Percentage ratio of 1938 to 1913.

^a *Agricultural Economy*, p. 212, 1936. *Triumphs of Socialist Agriculture*, pp. 79, 82. By Ogiz, 1939. *The Kolkhozes Under the Second Five-Year Plan*, p. 29. Gosplan 1939. *Socialist Building 1933-1938*, p. 37. Gosplan 1939.

The same picture is seen if the crops are compared not for separate years, which naturally do not reflect steady trends, but over longer periods. The absence of complete data prevents our applying this method to all crops, but such a comparison is possible with regard to grain. The average yield of grain for the period from 1909 to 1913 was 7.4 centners per hectare; for 1928-1932, 7.5 centners, and from 1933 to 1937, 9.1 centners.⁶ The increase in yield both in grain and in industrial crops is a fact of tremendous importance, for if this trend should continue it would mean the solution of the problem of economic stability in Russian agriculture. Because almost all arable land was in use by the end of the nineteenth century and its yield was low, Russia was unable to solve the problem of feeding her growing city and country population. Only the change from extensive to intensive methods of cultivation and the securing by these methods of stable and high yields hold the promise of a solution of this difficult problem. The data on the total yield of grain for

TABLE 8. *Total Yields of Grain Crops**
(In millions of centners—1 centner = 220.46 lbs.)

Years	Total Yields
1905-1909 (average)	566.8
1910-1914 "	675.6
1928-1932 "	735.9
1933-1937 "	944.7
1913	801.0
1937	1,202.9
1938	949.9
1939	1,103.1
1940	1,190.0
1941 (preliminary data)	1,240.0

* Figures compiled from the following sources:
Agricultural Economy, by Academy of Science, 1936, pp. 18, 217.
Socialist Building of the U.S.S.R. 1939, pp. 98, 103.
 Report by Voznesensky in *Pravda*, February 19, 1941.
Socialist Agriculture, p. 61. Gosplan, 1939.

five-year periods shows how significant the advance has been.

In pre-Soviet Russia, years of crop failure were frequent and the amplitude of the swing between good and bad harvests was as much as 40 per cent; therefore, the consistently high yields established in the last few years are especially noteworthy.

The yield per hectare has risen also in the case of cotton, beets, and potatoes, though this rise—as Table 7 shows—is less steady. The yield in flax and oleaginous seed is still low. The increase in industrial crops has been due chiefly to an increase in acreage sown.

TABLE 9. *Total Yield of Industrial Crops**
(In million centners)

Crops	1913	1928	1932	1937	1938	1938 as per cent of 1913	1940
Cotton, raw	7.4	8.2	12.7	25.8	26.9	363.5	25.1
Flax fiber	3.3	3.2	5.0	5.7	5.5	165.5	4.9
Sugar beets	109.0	101.4	65.6	218.6	166.8	153.0	222.0
Oleaginous seeds	21.5	34.0	37.0	51.1	46.6	216.7	..

* Same sources as for Table 8.

A more complex task was the restoration of livestock breeding which had declined during the Civil War. Its restoration began with the NEP and by 1928 all types of livestock had increased above the 1913 level. But forcible collectivization brought with it a further catastrophic decrease of livestock. The well-to-do peasants, either to save themselves from being considered kulaks or because they did not wish to give up their horse or cow to the kolkhoz without compensation, preferred to slaughter them for meat. As a result livestock decreased sharply and continued to do so until 1934. Only

after the Soviet government permitted the peasants to keep one or two cows apiece, as well as a certain number of smaller animals and poultry, on their own farmsteads (1934-1935) did cattle breeding begin to revive. This revival continues slowly, but the loss in cattle and horses through the years of "diskulaking" had not been recovered up to 1940. It is interesting to note that until recently the increase of livestock in the individual possession of members of the kolkhoz and that owned by individual peasants (nonmembers of a collective) has been faster than in the sovkhozes and kolkhozes. It was not until 1939 and 1940 that a turning point in this respect was noted, according to official statements.

TABLE 10. *Total Livestock in July**
(In million heads)

Years	Horses	Cattle	Sheep and Goats	Hogs
1913	35.5	60.3	112.0	20.3
1916	35.8	60.6	121.2	20.9
1929	34.0	68.1	147.2	20.9
1932	19.6	40.7	52.1	11.6
1933	16.6	38.4	50.2	12.1
1934	15.7	42.4	51.9	17.4
1935	15.9	49.2	61.1	22.5
1936	16.6	56.7	73.7	30.5
1937	16.7	57.0	81.3	22.8
1938	17.5	63.2	102.5	30.6

* Same sources as for Table 8.

It will be seen from Table 10 that a restoration of livestock is in process. In order to hasten this, the Soviet government in 1938 directed that livestock breeding farms be organized in each kolkhoz, and invested large funds and organizing skill in their development. According to data published for 1940, the share of livestock owned by the kolkhoz farms increased considerably in those two years. For instance, the

number of cattle increased from 14,600,000 head in 1938, to 20,000,000 head in 1940; the number of hogs from 6,300,000 in 1938 to 8,900,000; sheep and goats from 22,800,000 to 41,900,000; and horses from 12,500,000 to 14,400,000.⁷ Since data on the total amount of livestock for 1940 has not yet been published, it is impossible to judge whether what has taken place was merely a transfer of the livestock of members of the kolkhozes to the kolkhoz farms or whether a general increase of livestock resulted from improved farm management. The report of Voznesensky at the 18th Conference in February, 1941, states, without giving information about the total number of heads, that "the kolkhozes bought up a large quantity of young livestock from their members."

A detailed appraisal and analysis of the economic and social results of the policy of collectivization will be made in a later chapter, but it should be noted here that the basic economic task faced by the kolkhozes at the time of their organization has been accomplished. The transfer of private farms to the collectives, the resulting increase in the size of farms, improvement in methods of cultivation and the organization of agriculture, have substantially increased the productivity of agriculture and thereby released an increased amount of grain for the needs of the cities and for export.

Before the war (1914-1917) the landowner furnished 22 per cent of all the marketed grain, the well-to-do peasant 50 per cent, and the middle and poor peasants 28 per cent.

At present the kolkhozes supply 86 per cent and the sovkhoses 12.5 per cent of all the market demand for grain.⁸ The organization of kolkhozes has greatly simplified the task of grain collection for the government. What it was previously able to obtain, in the majority of cases, only by the use of force it is now able to obtain, thanks to the firm establishment of collectivization, mostly through administrative and economic measures. The quantity of agricultural products subject to compulsory delivery to the state is fixed annually by law and is assessed by regions and kolkhozes. The fulfill-

⁷ *Pravda*, February 19, 1941.

⁸ A. Arutinian, *The Great Triumphs of the Land of Socialism*, p. 38. Socecigiz, 1939. *The Triumphs of Socialist Agriculture*, p. 81. Ogiz, 1939.

ment of these obligatory deliveries, as well as the determination of the quantities of grain, flax, wool, milk, meat, and eggs which the kolkhoz in addition sells "voluntarily" to the government, lies with the administrators of the kolkhozes among whose number the government takes special care to ensure a docile majority in its favor.

In addition to this the government, during the time of the five-year plans, organized 6,358 machine tractor stations (MTS) in which it concentrated all the tractors, combines, threshers, trucks, and other complex machinery, which serve the kolkhozes for a legally fixed fee, paid in kind. By the end of the Second Five-Year Plan an overwhelming majority of all agricultural machinery, as well as repair shops for them, were in the hands of the government MTS organizations which enter into contracts for the harvesting of the crops.

Thus, in the country as in the city the control of the means of production has fallen into the hands of the state, which places them at the disposal of the kolkhoz on a rental basis. This has enormously increased the economic power of the government and has greatly simplified its task of collecting the large part of the agricultural products which it requires for industry, for feeding the cities, the army, and for export. MTS carries out for the kolkhozes, and partly for the individual farmers, all the mechanized agricultural work (plowing, sowing, harvesting, threshing, etc.) and receives agricultural products in payment.⁹ Grinding into flour and making meal, pressing of vegetable oil, etc., are likewise paid for in kind.

In 1930 MTS had charge of 7,100 tractors of 86,800 horsepower; by 1938 the number had increased to 394,000 tractors of 7,437,000 horsepower, and in 1941 it was 454,000 tractors with 9,100,000 horsepower. In 1932 MTS had 3,000 combines; in 1939, 125,000. In 1930 MTS cultivated 1,200,000 hectares of land; in 1938, 66,000,000 hectares (91.2 per cent of all the kolkhoz land).¹⁰ The sovkhoses had, in 1940, 90,000 tractors, while scientific agricultural institutes, estates be-

⁹ In 1940 a monetary payment was established.

¹⁰ Report of J. Stalin to the 18th Conference of the Communist Party, 1939.

longing to factories, experimental stations, etc., had another 3,000.

Through its nationalization of the kolkhozes, the government was enabled to increase considerably the amount of its collection of agricultural products, especially the grain crops.

TABLE 11. *Government Collections*
(In million centners)*

	1923-1924	1929	1932	1937	1938
Grain Products	73	162	220	318.5	295.0
Cotton, Raw	7	9	12	25.0	26.0
Flax Fiber	0.9	1.7	2.9	3.2	2.8
Sugar Beets	62	93	61.2	214.5	202.5

* Compiled from the following sources:

Agricultural Economy, p. 193, 1936.

Building of Socialism, 1928-1938, p. 87.

Kolkhozes under Second Stalin Five-Year Plan, p. 95, 1939.

In the period of five-year plans the government has collected grain and other agricultural products from the kolkhozes by three principal methods: through obligatory delivery, as payment for work done by the MTS and flour mills, and finally by purchase. The sovkhoses must turn over to the government all of their market products; while quotas of delivery for individual farmers are 10-20 per cent higher than those of the members of the kolkhozes.

The relative importance of these three methods of collection of agricultural products can be seen from the following figures: in 1937¹¹ the government collected a total of about 320 million centners (32 million metric tons) of grain products, of which nearly 80 million (8 million tons) were obtained by purchase while the rest (about 75 per cent) by obligatory deliveries. Of the 225,200,000 centners obtained from the kolkhozes by compulsion 42 per cent was obligatory delivery to the government, 40 per cent was in the form

¹¹ A year of record harvest.

of payment for work done by the MTS, 12 per cent in fees for grinding of flour, and the rest repayment of loans, etc. The amount of grain levied by the government shows a rising trend, though fluctuating from year to year. The part received by the government in payment for work done by the MTS and the flour mills is rapidly rising and so is the quantity of grain bought up by the government. In 1933 only 4 million centners of grain were bought by the government; during 1934-1936 the purchases had grown to 32-35 million centners a year, while in 1937 and 1938 they had increased to 80 and 60 million centners, respectively. Since the government buys the grain at prices below those prevailing in the free markets, government purchases include a concealed additional tax upon the peasants and their kolkhozes. At the end of 1940 and the beginning of 1941, the Soviet government issued several new enactments by virtue of which the levies of grain, industrial crops, meat, milk, wool, butter, oil, eggs, poultry, are assessed according to fixed rates per hectare. These measures have introduced a decided change in the economic relationship between the government and the kolkhozes, and will be treated more fully in a later section of this chapter: "Economic and Social Consequences of Collectivization, and its Future."

THE ORGANIZATION OF STATE FARMS (SOVKHOZES)¹²

At the beginning of the Soviet regime, when at first a spontaneous and later an organized breaking up of large estates was taking place, a certain number of well-organized large estates were preserved in the public interest as model agricultural stations. An attempt was made to turn them into Soviet government agricultural estates—Sovkhozes—organized as agricultural factories operating with hired labor and working for the market. In view of the general disorganization prevailing at that time, the sovkhozes were poorly man-

¹² *Triumphs of Socialist Agriculture*, pp. 53-70. Ogiz, 1939. *Second Five-Year Plan*, 1933, Vol. 1. pp. 189-214. *Socialist Building of the Union*, 1933-1938, p. 87. "Summary of Achievements of the Second Five-Year Plan," 1938, pp. 31-34. Tsylo, *Ways of Building up the Agriculture of the U.S.S.R. in the Next Five Years*, 1930, p. 39.

aged, producing little and operating at a great loss to the government.

In 1928, after it was clearly established that the government grain collections for the cities were a failure, Stalin¹² advanced the idea: "To transfer all the small individual peasant holdings to collective farms—kolkhozes from which the government would require delivery of grain at fixed prices, on penalty of withdrawal of subsidies and privileges, and to expand the existing and organize new large-scale state farms—sovkhozes."

In accordance with the decrees of March 16 and November 23, 1928, large funds were appropriated for the sovkhozes which were equipped with tractors, agricultural machinery, trucks, implements, the best selected seeds, and pedigreed livestock. Party organizers were appointed as directors of the sovkhozes, while trained agricultural experts were made their assistants.

In addition to the land already at the disposal of the kolkhozes, it was decreed "in regions free from peasant allotments, to organize new large-scale sovkhozes ranging in size from 10,000 to 30,000 "desiatins" (from 27,000 to 80,000 acres each). At present there are a small number of sovkhozes in nearly every region, but the main sovkhoz areas are the Kuban, Northern Caucasus, the Ukraine, the Odessa district, Lower and Middle Volga, Siberia, the Bashkir Republic, and Kasakstan.

By 1938 the sovkhozes had an area of 68 million hectares, but the sown acreage amounted to only 12.4 million hectares. An average of 1.7 million people are employed steadily by the sovkhozes, the majority of them highly skilled workers and agricultural specialists. Many sovkhozes have connected with them experimental stations and courses for training people to operate tractors and combines, and to act as "brigadiers" and mechanics.

There is a good deal of specialization by the sovkhozes. Thus there are 471 grain-raising sovkhozes, 320 that grow cotton, flax, sugar beets or hops, 100 tea and tobacco farms, 407 fruit, vegetable, and grape-growing farms, 1,753 stock-

¹² *Pravda*, June 2, 1928.

breeding ranches, 16 for breeding fur-bearing animals, 95 poultry farms, 820 suburban truck farms, and so on.

The majority of sovkhoses are organized on newly acquired land. Those based on old estates constitute only 15 per cent of the total.

The following table gives a picture of the growth and development of the sovkhoses:

TABLE 12. *Sovkhoses (State Farms)**

	Unit	1928	1932	1937	1938
Number of sovkhoses		1,407	4,337	3,902	3,992
Fixed capital	Million rubles	377.2	3,767	7,160	..
Land under cultivation	" hectares	1.7	13.4	12.2	12.4
Acreage under grain cultivation	" "	1.1	9.2	8.7	8.8
Number of workers and office employees	Thousands	410	2,800	1,870	1,518
Number of tractors	"	6.7	64.0	84.5	85.0
Power of tractors	Thousand hp.	77.6	1,043	1,647	1,752
Number of combines	Thousands	..	12	24	27
Trucks	"	0.7	8.2	25.6	26.6
Cattle	Millions †	0.2	3.2	3.7	4.6
Hogs	"	0.05	1.8	2.8	3.0
Sheep and goats	"	1.2	5.7	7.0	10.8
<i>Delivered to the government:</i>					
Grain	Million centners	3.9	15.9	41.2	43.2
Meat	Thousand tons §	9	150.0	358	340
Dairy products	" "	118	650.2	1,669	..
Wool	" "	2	11.0	20	28
Cotton	" "	13	60.8	141	168
Tea	" "	..	3.6	8.3	10.2
Tobacco	" "	0.3	4.5	10.7	..
<i>Sold to the kolkhoses:</i>					
Pedigreed livestock	Thousand head				
Cattle	" "	..	8.3 ‡	..	28.9
Hogs	" "	..	42.9 ‡	..	46.9
Sheep	" "	..	22.4 ‡	..	251.4

* For sources, see footnote 12.

† All figures are for January of the respective years except the number of cattle in 1928, which is for June.

‡ Data for 1933.

§ 1 metric ton = 2,204.6 lbs.

This table shows the growth in number and strength of the sovkhos system in the period of the five-year plans. Be-

fore the five-year plans the sovkhoses covered only 1.7 million hectares of land under cultivation, i.e., less than 2 per cent of all the land under cultivation, while by the end of the Second Five-Year Plan they sowed annually more than 12 million hectares, i.e., nearly 9 per cent of the land under crops. The number of livestock in the stock-breeding sovkhoses also increased many times over. The number of workers during the five-year period increased fourfold.

In order to ensure high productivity and to increase the volume of surplus products available for the market, the state invested enormous funds in the sovkhoses, while only a few billion rubles were put into the kolkhoses. More than 15 billion rubles were invested in the sovkhoses during the period of the first two five-year plans. The best technical equipment was sent first to the sovkhoses. While the kolkhoses had one horsepower of tractors for each 14 hectares of land under cultivation, the sovkhoses had one horsepower of tractors for each 7 hectares, a proportion of 2 to 1.

Almost all the work in the sovkhoses is mechanized: 94.5 per cent of the plowing, 95 per cent of the hauling and 80 per cent of the other work. The sovkhoses were the first to be supplied with selected seeds and with fertilizer. The sovkhos workers receive wages at rates especially worked out for them. They have the use of living quarters, dining rooms, and educational and entertainment facilities. The yearly pay of a skilled sovkhos worker had risen to 4,000-5,000 rubles in 1937. Every sovkhos has a day nursery, recreation grounds, and kindergartens.

Positive results have been achieved in the matter of production. The crop yield has risen considerably, both in the grain-raising sovkhoses and in those raising industrial crops, and production has likewise increased in the livestock breeding and dairy sovkhoses. The task set by the First Five-Year Plan "to produce 100 million poods" (60 million bushels)¹⁴ of grain for the market had already been fulfilled by 1932, while since 1937 the sovkhoses have been delivering more than 240 million poods of grain to the government. As for industrial crops, the sovkhoses are the chief source of supply

¹⁴ 1 pood = 40 Russian lbs. = 36 lbs. avoirdupois.

of raw materials for the industry. They have taken the place of the big landowners. They produce about 10 per cent of the total grain yield and about 15-20 per cent of the marketed grain. The gross value of the products increased from 230 million rubles in 1928 to 1,835 million in 1937, valued in 1926-1927 rubles. The share of the sovkhoses in the gross agricultural output increased in the years of the first two five-year plans from 1.5 to 12.8 per cent, of which the increase in the relative share of the grain output was 1.6 to 9.3 per cent, in meat and lard from 0.2 to 15.2 per cent, in dairy products from 0.5 to 8.2 per cent, in wool from 1.1 to 21.1 per cent, in potatoes and vegetables from 0.8 to 6.2 per cent.¹⁵

All indexes point to an increase in production in recent years. In 1932 the amount of grain raised per work day was 0.65 centners, while in 1936 it was 2.85 centners. Thanks to mechanization the sovkhos spends only 18 hours to cultivate one hectare of grain, while on old estates it took 30 hours.

However, in spite of all these advances in production, the sovkhoses proved unprofitable in the first five-year period, and the situation is not much better at present. Only a small part of the produce of the sovkhoses is available for the market, which makes them a loss financially. The Soviet economists, Professors Liashchenko and Grekov, in studying the productivity of sovkhoses on the eve of the First Five-Year Plan, came to the conclusion that "the cost of production of grain in the sovkhos is higher than the cost of grain raised by the peasants." The percentage of the product which goes to feed those who work in the sovkhos is great.¹⁶ Investigations of the sovkhoses in 1930 and 1933, carried out by order of the government, disclosed that they were poorly managed, that budget estimates of cost were exceeded while estimates of income fell short of actual receipts. The personnel costs were high and a disproportionately large percentage

¹⁵ *Triumphs of Socialist Agriculture*, p. 64. Ogiz (United Govt. Pub.), 1937.

¹⁶ P. Grekov, *Plan for the Organization of Large Scale Sovkhoses*, 1926. P. Liashchenko, *Grain Farming*. Moscow, 1932.

of the products was consumed within the sovkhos, and there was much theft and waste of production.

In 1934 Stalin pointed out the disparity between the results of sovkhos production and the tremendous amounts invested in them.¹⁷

By special decree of the government in 1934 the sovkhoses were divided into smaller units, and it was decided that a sovkhos must not exceed 10,000 to 15,000 hectares of arable land. Moreover, it was decided to create diversified sovkhoses, combining plant-raising and breeding of animals, for the most efficient utilization of soil, production, waste products, and labor.

Notwithstanding the fact that the productivity of the sovkhoses had greatly increased, and the product available for sale had somewhat increased, in 1939 it was again noted in the resolution of the 18th Conference of the Communist Party on the adoption of the Third Five-Year Plan, that the sovkhoses were operating at a loss. The small amount of food available for the market and the continued financial mismanagement and operating losses were pointed out. The most striking example of mismanagement was the fact that while the sovkhoses owned 68 million hectares of land, only 12.4 million hectares were under cultivation. It was proposed that "through further mechanization of agricultural production and actual growth in the productivity of labor, the sovkhoses be turned into highly productive and highly profitable enterprises serving as models of agricultural production, examples of high yields and productivity."

At one time the opinion was widespread in Soviet circles that all kolkhozes should be turned into sovkhoses and all the peasants be made hired laborers. The government's inability to cope with the organization of the work of sovkhoses even on their present scale, their chronic financial losses, the fear of arousing the peasants when attempting to turn them into hired hands, and the impossibility of assuring them suitable living conditions by way of food and shelter, and the satisfaction of other wants—all these considerations force

¹⁷ Report of the 17th Conference of the Communist Party, 1935.

the government to preserve the kolkhoz as the basic form of organization. Coupled with the chronic unprofitableness of the existing sovkhoses, a change of this kind might jeopardize the entire system of food supply to the cities.

THE ECONOMIC AND SOCIAL CONSEQUENCES OF COLLECTIVIZATION, AND ITS FUTURE

The problem of collectivization is one of the most important in the Soviet Union. Despite the enormous growth of industrialization, the greater part of the population (65 per cent) still earns its living by agriculture. As we have seen, the kolkhozes are the dominating, if not the only, economic and social form of organization in which agricultural production takes place in present-day Russia.

Kolkhoz is the name for large-scale consolidations of individual farms, in which hundreds or thousands of peasants are associated. In 1928 the average kolkhoz included 13 peasant farmsteads having a total surface of 41 hectares of arable land; in 1937 there were 76 homesteads with 476 hectares under cultivation.¹⁸ There are kolkhozes having 3,000-4,000 hectares under cultivation, and animal breeding kolkhozes having from 20,000 to 30,000 hectares each.¹⁹ In theory, the kolkhoz is a peasant producers' co-operative for the joint operation of all its work; in practice, the co-operative element in the kolkhoz has been reduced to a minimum and it is entirely dependent on the government. By the end of the First Five-Year Plan a majority of the peasants had been forced into the kolkhozes, and by the end of the Third Five-Year Plan it is estimated that only 3-4 per cent of all the peasants had remained outside the kolkhozes, and that practically the entire agricultural production is carried on by the kolkhoz system. The individual peasant, of the type prevailing in pre-Revolutionary Russia and in the rest of the world, has almost ceased to exist in the U.S.S.R. The peasant with his typical psychology of the small property owner has almost disappeared, having been transformed into

¹⁸ *Kolkhozes in the Second Stalin Five-Year Plan*. Gosplan, 1939.

¹⁹ In Germany the size of the average farm is 6.5 hectares; in the United States, 20.6 hectares.

an agricultural producer working under new, half-co-operative, half-factory conditions.

Self-government in these organizations is only nominal; they are run by people put forward by the local Soviet or Communist party organizations. All government orders relating to kolkhozes are binding even without preliminary discussion by their members. For instance, the order to expel from the kolkhozes those who had not worked a minimum number of labor days and the instructions about bonuses for labor days were dictated to the kolkhozes in the form of a law.

In spite of the vagueness of the legal and social structure of the present-day kolkhozes, they have been a concrete reality in Soviet Russia for about fifteen years, they are becoming stronger and determine the conditions of work and production of the major portion of the population. It is therefore necessary to make a close study of their organization and activity.

Experience has demonstrated that the present-day kolkhozes, being large combinations of farms, highly mechanized and practicing advanced methods of agriculture, are a phenomenon of economic progress. In spite of the forcible and cruel process of collectivization, in spite of the bureaucratic and frequently inefficient administration, production in the kolkhozes is growing rapidly. As already shown, production of both grain and technical crops is increasing from year to year, and, what is especially important, there has been a shrinkage of the wide fluctuations in harvest yield, which was so characteristic of the pre-kolkhoz economy. There has been a gradual but steady revival of stock breeding, which was especially hard hit by the civil war, and later by forcible collectivization.

Mechanization of all agricultural production is taking place at a rapid rate, which has proved possible technically because of the great size of the kolkhozes and financially because of the large appropriations by the government made under the planning system.

The People's Commissariat of Agriculture conducted an investigation of 221,000 kolkhozes (91 per cent) for the year

1937.²⁰ A study was also made of the productivity of labor in 430 kolkhozes selected so as to give a cross section of regions of all types, in 1937, as compared with that in 1933 in individual farms in the same regions.

The results were as follows: the mechanization of operations and the introduction of new agricultural methods considerably reduced the need for human labor in almost all the stages of agricultural work. The introduction of plowing by means of the multiple plowshare and tractor-driven plow brought about a great saving of labor of man and beast, and in addition ensured deep plowing of the soil. The use of combines simplified the work of harvesting. The introduction of tractors, combines, and other agricultural implements has reduced the entire process of production to 10.5 labor days per hectare, whereas on individual farms the same operations required 20.8 labor days. At the same time the amount of production per hectare under the kolkhoz system has increased by 60 per cent. Altogether, in respect to all the basic agricultural operations, the productivity of the kolkhozes is 3.2 times higher than that of individual farms. If only those kolkhozes are considered which use tractors, combines and seeders, their productivity is 7 times that of individual farms. Each harvester, on the average, takes the place of 75 men. All the work which was done in 1937 by tractors and combines displaced more than 7 million workers.²¹

The introduction of new agricultural methods has created a certain stability in the matter of the gross annual crop yield. That which neither War Communism nor the NEP succeeded in doing, i.e., to get the Russian peasant to adopt improvements in methods of agriculture, and above all the intensification of all the agricultural processes, has been accomplished under collectivization.

The experience of the first years of the Revolution showed that neither confiscation of the estates of the big landowners

²⁰ *Socialist Reconstruction of Agriculture*, 1938, Nos. 7, 8. *Analysis of Reports of Kolkhozes*. The Commissariat of Agriculture, 1939. *Socialist Agriculture*, 1939, No. 7.

²¹ Mechanization, while solving a definite problem in rationalization of agricultural economy, at the same time makes the problem of "overpopulation" of rural Russia still more acute. We will return to this question later.

nor turning over all this land to the producer himself—the peasant—had solved the problem of shortage of land, since even under the institution of private property before the Revolution a considerable part of the land suitable for cultivation had been worked by the peasants either as tenants or as hired laborers.²²

The increase of land under cultivation was taking place too slowly and was no solution even to the problem of providing for the natural increase of population. The problem of increased production could be solved in one way only: by increased productivity. Each hectare had to be made to yield more grain, cotton or beets. This was possible only through a change to intensive methods of cultivation. Because of the Revolution and the Bolshevik dictatorship, this was brought about through compulsory collectivization.²³ After collectivization, the government began to return to the country in the form of tractors, machinery, fertilizers, etc., a part of the enormous capital which it had extracted from the peasantry.

Two facts stand out in the social aspect of present-day agriculture. In the first place, the share which the government by various means extracts from agriculture, is great; it is as much as 35-40 per cent of the gross income of the kolkhoz. This fact accounts for the poor lot of the average peasant. At the same time a new process is taking place—a new social stratification among the peasants. Thousands are more or less prosperous while millions are struggling for a mere existence.

The state, through taxes, obligatory deliveries, fees to MTS, and pressure exerted by the administration and party organizations, exacts from the kolkhozes, as we have seen, a large share of their income in kind and money. In recent years (1937-1939), since conditions have been stabilized somewhat, the share received by the individual members of the kolkhoz amounts only to 35-39 per cent of the gross yield. As far as the industrial crops are concerned, the kolkhozes

²² I. Merinov, *Productivity of Labor in the Kolkhozes*. Socialist Agriculture, 1939, No. 7.

²³ For a more detailed account see my book, *Economic Trends in Soviet Russia*, pp. 155-162. New York: Richard R. Smith, 1930.

are obliged to surrender to the government almost 100 per cent, at prices that are much lower than the market price. Aside from what the kolkhozes give up to the government in kind, they are obliged to pay for the costly local administration, the numerous officeholders and office employees of the kolkhoz, the staff and employees of the MTS. According to the law the kolkhozes must put aside the following annual funds: for seed reserve, seeds for current year, insurance, fodder, mutual aid, and relief fund for emergencies. It is only after all these obligations are taken care of that the income is divided among the kolkhoz members, out of which they must pay a direct income tax of more than 10 per cent. In 1933, for example, the kolkhozes received for distribution among their members 32 per cent of their cash income, in addition to 39 per cent of the total yield of grain, in kind. In 1937, 48 per cent of all their money income was distributed. Such a system causes great dissatisfaction among the members, and in 1937 a special decree was issued by the Council of the People's Commissars and the Central Committee of the Communist party, providing for "the distribution among the members of the kolkhozes of not less than 60-70 per cent of the money income."²⁴ However, as can be seen from the following data for 1938, the share of the income which reached the peasants fell short of the figure provided for in the above decree. In 1938, according to a report of the People's Commissariat of Agriculture, 52.8 per cent of all the money income of the kolkhozes was distributed among the members according to labor days, 19.2 per cent was set aside for purposes of production, 14.5 per cent for the acquisition of common kolkhoz property and for building, 8.9 per cent for taxes and insurance, 3.14 per cent for miscellaneous funds, 1.5 per cent for administrative purposes.²⁵

In recent years a process of sharp differentiation can be observed between kolkhozes and within the kolkhoz between its members. Income reports of kolkhozes for 1937 (there

²⁴ Decree of the Council of People's Commissars, relating to the improper distribution of the income of the kolkhozes, April, 1937. *Kolkhozes in the Second Stalin Five-Year Plan*, 1939, p. 107.

²⁵ *Pravda*, October 21, 1939.

are no complete figures of kolkhoz incomes for a later period) show the following grouping of kolkhozes by income: in all the U.S.S.R. there were 610 kolkhozes with a money income of a million rubles or over, constituting 0.3 per cent of all the kolkhozes. The medium-sized kolkhozes, constituting 75 per cent of the total, have an average income of 60,000 rubles a year. This means an average of less than 172 rubles of money income per annum per member. 60,000 and a million rubles, such is the abyss between the average kolkhoz and the millionaire kolkhoz. But there are even deeper chasms: 6.7 per cent of all the kolkhozes receive an annual income of only 1,000 to 5,000 rubles, that is the opposite pole to the "millionaire" kolkhoz in the kolkhoz world.²⁶

The Soviet press prints many accounts of the millionaire kolkhozes but they are only $\frac{1}{3}$ of 1 per cent. Of the pauper kolkhozes little is written in the Soviet press, although they are twenty times as numerous as the millionaire kolkhozes.

The millionaire kolkhozes are in most cases those which produce raw materials for industry, fruit, tea and medicinal plants. Half of these kolkhozes (303) are in Uzbekistan, 27 in Tadzhikistan (both in Central Asia) while in all the Ukraine there are only 30. In all the U.S.S.R. there are 0.3 per cent of millionaire kolkhozes; in the Russian Soviet Republic (i.e., Russia proper, as distinguished from the Ukraine and other national republics included in the Soviet Union) they constitute 0.4 per cent of the total; in the Ukraine, 0.1 per cent; in Azerbaijan (the Caucasus), 1.8 per cent; while in Uzbekistan they rise to 3.5 per cent of the total.²⁶

In 1940, after the change in the system of obligatory deliveries (referred to later), the number of millionaire kolkhozes increased, but they still comprise an insignificant part of the total, slightly more than $\frac{1}{2}$ of 1 per cent. The latest figures of total kolkhoz income are published for 1939, and show the income of all the kolkhozes to be 18.5 billion rubles.²⁷

²⁶ *Kolkhozes in the Second Stalin Five-Year Plan*, pp. 123-127. Report of the People's Commissariat of Agriculture. Plansocgiz, 1939.

²⁷ *Socialist Agriculture*, November 27, 1940.

In 1932 the average kolkhoz money income was 21,700 rubles; in 1937, 58,000 rubles; while in 1939 it rose to 75,000 rubles. The same trend is to be observed in the average income of the individual members of the kolkhoz: in 1932, 311 rubles; in 1937, 786 rubles; in 1939, 982 rubles.²⁷

The most recent comparable data on classified kolkhoz incomes for the whole country is only for the years 1935 and 1937. In 1935, 225,000 kolkhozes out of a total of 245,000, and in 1937, 225,000 out of a total of 245,000 were studied, showing the following results:

TABLE 13. *Distribution of Kolkhozes by Money Income**

Income (in thousands of rubles per kolkhoz)	Per Cent of Kolkhozes	
	1935	1937
Up to 30,000 rubles	60.9	55.3
From 30,100 up to 120,000 rubles	31.7	33.7
From 121,000 up to 240,000 rubles	4.5	6.9
From 241,000 up to 640,000 rubles	2.7	3.3
From 641,000 up to 1,000,000 rubles	0.1	0.5
Over a million rubles	0.1	0.3

* Table based on the following sources:

Kolkhozes in the Second Stalin Five-Year Period, 1939, pp. 117-125.

Socialist Reconstruction of Agriculture, 1938, No. 1, and 1939, No. 5.

A year later (in 1938) a study was made by the Commissariat of Agriculture of the incomes of only 30,000 leading kolkhozes. Among these, the group with incomes of 121,000 to 240,000 rubles constituted 63.4 per cent in 1937, and 62.7 per cent in 1938, while the highest group, with incomes above 1 million rubles comprised 2.1 per cent in 1937, and 2.3 per cent in 1938.

Both these studies—the one for 1935 and 1937 including almost all the kolkhozes, and that for 1937 and 1938 covering only 13 per cent—show the same trend during those three years. The kolkhozes with a very small income (500 to 1,500

rubles a year per peasant) comprise nearly 90 per cent; of kolkhozes with a million rubles income there are very few, from $\frac{1}{10}$ to $\frac{3}{10}$ of 1 per cent; but even in the group of leading kolkhozes, the highest income group constitutes only 2.3 per cent of the total. A general improvement in well-being in these is observed, coupled with a trend toward a widening of the differences in income between the groups of kolkhozes.

The same trends can be observed in their income in kind. Taking first the figures of allotment of the chief kolkhoz product, grain, we find the average allotment of grain per labor day constantly growing: in 1932, it was 2.3 kilograms; in 1935, 2.4 kilograms; in 1937, 4 kilograms.²⁸ In 1936, 88.1 per cent of the kolkhozes allotted less than 3 kilograms for 1 labor day, while in 1937 the number of such kolkhozes dropped to 40.6 per cent of the total. Both in 1936 and in 1937 the process of stratification was striking. In 1937, 8 per cent of the kolkhozes allotted less than $1\frac{1}{2}$ kilograms per labor day, more than half allotted up to 3 kilograms, 10 per cent allotted from 7 to 15 kilograms, and only $\frac{1}{3}$ of 1 per cent made an allotment of over 15 kilograms. In 1938, 0.7 per cent of all the kolkhozes allotted over 16 kilograms, but 12 per cent allotted less than 3 kilograms per labor day.

Since the labor day does not represent a constant quantity but fluctuates at different times and varies from one kolkhoz to another, it is impossible to get an accurate picture of the actual division of grain. The variation in the labor day in 1938 ranged from 1 to 10, while the variations in the number of labor days credited to the individual members were from 1 to 6. In many kolkhozes the number of labor days credited to the individual members was so insignificant—less than 20-30 per annum—that it was manifestly fictitious. The average for one peasant in 1937 was 38 labor days.²⁹ However, while it is impossible to calculate accurately the amount of grain any particular group of kolkhoz members received, there is ample ground for stating that up to 1936 there were hundreds of kolkhozes in which the allotments exceeded the

²⁸ *Socialist Agriculture*, 1939-1940.

²⁹ *Kolkhozes in the Second Stalin Five-Year Plan*, pp. 36, 110. Gosplan, 1939. *Socialist Agriculture*, 1939, p. 46.

subsistence minimum, but in the majority the allotments were below the minimum subsistence level. In 1932 the average allotment per kolkhoz household (consisting of 4.5 persons on the average) was 600 kilograms of grain; in 1937 the allotment was 1,740 kilos. In addition, allotments of potatoes, vegetables, fruit, feed, and so on in 1937 was from 2 to 3 times as large as in 1932.²⁹

The report of the Commissariat of Agriculture contains a table of money incomes not only of the kolkhozes but also of their individual members. In 1937 the money allotment per labor day was as follows: in 70 per cent of the kolkhozes, 1 ruble or less; in 20.6 per cent, from 1.01 to 2.20 rubles; in 5.2 per cent, from 2.21 to 3.00 rubles; in the remaining 4.2 per cent, more than 3 rubles. The same picture of sharp differentiation!

Torn between the need to increase agricultural productivity and its reluctance to legalize the restoration of agriculture on a basis of private property, the Soviet government found itself obliged in 1934 to make a certain concession to the peasants' longing for ownership: permission was granted for each peasant to have a farmstead from $\frac{1}{4}$ to 1 hectare (about $\frac{1}{4}$ to 2.5 acres) on which he and his family could conduct their own private farming.

The government policy of taking away an excessive share of the annual product of the kolkhozes, at prices clearly spelling loss, leaves the peasant without sufficient incentive to apply himself intensively to work for the kolkhoz. Some peasants deliberately restrict their "work for the government"—as they regard their work in the kolkhoz—to the established minimum of 80 labor days per year.³⁰ The rank-and-file member of the kolkhoz has transferred his interest to his own farmstead where his labor, while less productive in an economic sense, is more profitable for him. A study of the disposition of his time by the peasant, made in 1938, showed that he devoted about 30 to 35 per cent of his time to his own farmstead.³¹

²⁹ Decree of May 27, 1939.

³¹ B. Babanin, "On the Disposition of Labor in the Kolkhozes," *Planned Economy*, 1938, No. 12.

The farmsteads began to play an important part as a source of the food supply of the country, not because they were more efficient than the kolkhozes, but for social and political reasons. The products of the individual farmsteads formed 25.4 per cent of all the agricultural production in 1938 (in terms of 1926-1927 prices); in the production of grain theirs was only 9.2 per cent, in truck garden crops 11.3 per cent, while in the raising of livestock it was 67.9 per cent of the total.⁸² No accurate figures are available as to the part the farmsteads play in supplying the cities with foodstuffs. It is not found expedient to publish them, but there are numerous articles in the Soviet press in which the tremendous part the farmsteads are playing in the cities' food supply is openly emphasized. Toward the end of 1939 the writers in *Socialist Agriculture*, the organ of the Commissariat for Agriculture, and in *Planned Economy*, the organ of the Gosplan, were publicly rebuked for "going into ridiculous transports" over every figure that shows the large role played by the individual farmsteads of the kolkhoz members.

Life made substantial changes in Stalin's political plan with regard to the peasantry. It was expected that the bulk of the production for the state and the cities would be supplied by the kolkhozes, while the individual farmsteads to which the government reconciled itself for the time being would merely serve to supplement the food supplies of the kolkhoz members and their families. In practice it has worked out otherwise. The large-scale, well-equipped, mechanized kolkhozes produce the grain, cotton, sugar, flax, and other raw materials required for the needs of the population, industry, and export, but they do not yield a sufficient amount of the other foodstuffs to supply the cities through market channels, in quantities called for by the plan. This function is in a large measure performed by the private farmsteads of the kolkhoz members. They supply the city markets with meat and meat products, dairy products, eggs, poultry, vegetables, fruit, honey, mushrooms, and berries. These tiny farms are cultivated intensively in a great variety of ways. On one

⁸² *Kolkhozes in the Second Stalin Five-Year Plan*, pp. 114, 115. Gosplan, 1939.

or two hectares, millions of kolkhoz members—like the farmers of Finland or Japan—conduct highly diversified agriculture, making up for lack of capital by intensive work by all the members of the family.

In the first half of 1940, one-fifth of all the transactions of internal trade represented sales by kolkhoz members of the produce of their own farmsteads. It would be erroneous to suppose that the kolkhoz acts merely as a screen for these farmsteads. The kolkhoz has not only freed its members from worry over the basic item of their nourishment—bread—but it has become for the individual farmstead an invaluable source of new, scientific methods of agriculture, and in addition has solved a problem of tremendous importance: it organizes the delivery and sale of the farmstead produce at the city markets. It has removed the chief obstacle to intensive cultivation by the small farm: the problem of reaching the city markets.

A general advance in agriculture has been taking place in recent years through the utilization of both large and small, collective and private, forms of agricultural enterprises, but not altogether on the basis foreseen in the plans. Life has applied its own correctives. The kolkhozes have achieved a decisive part in agricultural production, but the small privately owned farmsteads have also proved essential.

The peasant problem, as no other Soviet problem, clearly reveals the inconsistency of the economic policy of the government. It vacillates between the desire to cast its lot with the interests of the many millions of peasants, and the fear of the growing economic role of the peasantry. After the exceptionally critical period of forcible collectivization, the kolkhoz system seemed to furnish the way of economic progress out of the impasse. After several years of most brutal violence, after enormous human and material sacrifices, the government succeeded in securing its victory, and then in assuring the improvement of agriculture on the new collective basis. But in order to hold its gains it was necessary to take into account the age-old psychology of the peasant, who could not change radically in a few years. The peasant demanded recognition of his right of absolute ownership of a

piece of land side by side with the kolkhoz, and his right—after fulfilling his obligations to the government—to sell the produce of his farmstead at free market prices. After some wavering, the Soviet government in 1934 agreed to this and permitted farmsteads within the limits of $\frac{1}{4}$ to 1 hectare. A little later, in 1935, the code for the kolkhozes was worked out and solemnly promulgated. It received the name of the “Stalin Code” and confirmed these rights of the members of the kolkhozes.³³ The model code of the kolkhozes, having the force of law in the U.S.S.R., states:

All boundaries formerly separating plots of land belonging to members of co-operatives, are hereby abolished, and all their holdings are pooled together to be used in common. . . . The land occupied by the kolkhozes (as all land in the U.S.S.R.) is public government property. It is, in accordance with the laws of the State of Workers and Peasants, secured to the kolkhozes for use without time limit, i.e., in perpetuity, and not subject to buying, selling or leasing to anyone by the co-operative. . . . All agricultural production on kolkhoz land shall be carried on by the members of the kolkhoz, jointly, co-operatively. . . . Out of the land held in common a small part shall be set aside for the personal use of each household (for truck gardening, orchards, etc.). . . . The dimensions of the farmstead land for the personal use of a member of the kolkhoz and his family (not including the land under dwelling houses) may vary depending on the region, from $\frac{1}{4}$ to $\frac{1}{2}$ hectare, and in certain regions up to one hectare, according to conditions determined by the respective Commissariats of Agriculture.³³

Several years' experience demonstrated the economic expediency of such a combination of collective and private agricultural forms. But as early as 1939, and later in 1940, decrees were promulgated, limiting the rights of the members of the kolkhozes in relation to their farmsteads. “All leniency with regard to size of farmsteads” was “liquidated.”³⁴ New limitations were put upon the amount of livestock a kolkhoz

³³ Second All Union Congress of the Kolkhoz Shock Workers, 1935. Model Code of the Kolkhozes, February 17, 1935.

³⁴ Decree of the Central Committee of the Communist Party, May 27, 1939: “Measures for the safeguarding of public land from being squandered away,” *Bolshevik*, 1940, No. 3.

member might keep, and on his rights to the use of pasture and fodder.³⁴ The part of the product subject to obligatory delivery to the state by the kolkhozes was again increased.

Once more relations grew strained between the peasants and the government, a particularly dangerous situation in view of the imminence of war.

Wishing to accommodate again the economic interests of the kolkhoz peasant, the Soviet government, in April, 1940, radically changed its entire system of assessing the obligatory deliveries of agricultural produce. A new order was established which strives to harmonize the interests of the state and those of the kolkhoz, and to make more concrete and tangible to the individual member that he has a stake in the increase of the income of the kolkhoz as a whole.

Decrees of the Central Committee of the Communist party and the Council of the People's Commissars established the basis for assessing obligatory deliveries to the government of grain, meat, vegetables, wool, eggs, and so on, according to the amount of land assigned to the kolkhoz in perpetuity.³⁵ The decree of January 10, 1941, applies the same method to the deliveries of milk and butter.³⁶ These decrees have the following social and economic significance: previously the kolkhozes had to deliver grain to the government according to the amount of land sown, meat and milk according to the size of the herd, eggs according to the quantity of poultry. The government, as we have said, would take the lion's share of the income, the kolkhoz would have at its disposal only 35 to 40 per cent of the gross product, which would then be distributed among its members according to the number of their respective labor days. Whenever there was an increase in the amount of land under cultivation or in the size of a herd, the amount due the government grew as well. The increase in the share of the individual kolkhoz member was so slight that he was practically unaware of having a stake in the growth of kolkhoz production. Under these conditions he

³⁵ "Changes in policy of collecting and buying up agricultural products." Decree of Central Committee of the Communist Party, April 6, 11, 15, and 16, 1940.

³⁶ Decree relating to obligatory deliveries of milk to the government, January 10, 1941.

had little personal interest in the quality or quantity of production. The members never knew how much they would have to give up to the government or how much each of them would receive. Thus the crop yield increased slowly and all the attention and interest of the rank and file members centered on their own tiny farmsteads.

The new decrees seek to create a more direct interest on the part of both the kolkhoz and its members in the increase of labor productivity in the kolkhoz.

In a different way, and much more timidly, Stalin has tried to do the same thing in relation to the kolkhoz that Lenin did in the first days of the NEP for the individual peasants when he issued his food tax decree in 1921.

The decree established fixed rates for deliveries to the government based on the land acreage of the kolkhoz, with slight variations for different regions. Anything that the kolkhoz raises by way of grain, livestock, vegetables, fruit, etc., above the fixed rates is its own. The decree actually states that no local authorities or collecting agencies have the right to induce the kolkhoz to give up to the government any of its produce above the fixed norms.

Before this enactment the kolkhoz used to strive only to increase the extent of the land under cultivation, but cared little about increasing the yield per hectare; now it is directly concerned, since only by increasing productivity can it get more than the norm established by the government. In addition, the kolkhoz is obligated and interested in organizing farms for raising livestock, sheep, meat, dairy products, vegetables, orchards, and other kinds of farming. All that the members of the kolkhoz produce above the tax in kind is at the disposal of the kolkhoz to be distributed among its members according to labor days.

The stake that the kolkhoz and its individual members have in increasing its earning power is made more direct, clear, and tangible.

The new system has been in effect only one agricultural year, but experience has already shown that it has served as a great stimulus to intensified labor and an increase in the income of the kolkhoz members.

The second decree providing for extra payment to members of kolkhozes goes even further in the same direction. It clearly aims, in connection with national defense, at conciliating the peasant masses who are dissatisfied by their small stake in the operation of the kolkhoz.

The decree⁸⁷ establishes supplementary pay for increasing the crop yield or productiveness in the raising of livestock. It has been introduced as an experiment in the Ukraine only. But the peasants and kolkhoz members of the other parts of the country liked the idea, and at the conference of the Communist party before the Supreme Council of the U.S.S.R. in February, 1941, petitions from various sections of the country were heard asking that the "benefits" of the measure be extended to them as well.

This decree seeks to make the income of the kolkhoz member more dependent on the quality of his work. There are several thousand persons working in the kolkhoz, a large percentage of whom are little interested in the general income and merely go through the motions in their work, so that the individual who works conscientiously sees no positive results from his hard work; he is paid merely according to the number of labor days, without any account being taken of the intensity of his labor. "We'll all get paid the same anyway," the members say.

The decree of December 31 directs the kolkhozes of the Ukraine to assign sections of field, meadow, garden, or separate branches of work to definite brigades, or teams.⁸⁸ A work quota is established for each team. If the production does not exceed the quota, the members are paid only by the labor day. But if a team produces above the norm it receives part of the excess as bonus. The bonus for grain equals one-fourth of the excess above the quota, for flax one-third of the excess, for potatoes one-fifth, for cotton or beets one-half, the bonus

⁸⁷ Decree providing for extra pay to members of kolkhozes for increase in agricultural crop yields and increase in productiveness in livestock raising in the Ukrainian S.S.R. December 31, 1940. *Bolshevik*, 1940, No. 24.

⁸⁸ All able-bodied members of a kolkhoz are divided into large working units—brigades—which in turn are divided into smaller work units or teams. At the head of the brigade is the "brigadier" who, with the heads of the teams, receives definite work assignments.

for the two last-mentioned products being paid not in kind but in cash.

On stock-breeding farms a milkmaid receives 15 per cent of the milk above her assigned milking task; the dairymaid who tends to the calves receives $\frac{1}{2}$ kilogram of meat for each 10 kilograms' gain in weight per head above the plan; hog breeders receive every fifth suckling pig above the plan, poultry raisers 15 per cent of the eggs and 50 per cent of the chicks above the norm, and so on. A similar system has been established for orchards, beehives, rabbit-breeding and sheep-raising farms. The extra pay is given to the team and is distributed among the members according to their labor days. In addition, the same decree provides for extra pay to the brigadiers, team leaders, and chairmen of the kolkhozes.³⁹

What is new in these measures is that for the first time in kolkhoz practice increase in productivity is sought by giving the individual members a tangible interest in the increase of its income. The Soviet government is applying to the kolkhozes the system of "Stakhanovism" that is in force in the factories.

N. Khrushchev, secretary of the Central Committee of the Communist party in the Ukraine, who directs all Soviet work in the Ukraine, explains the introduction of the new system in words that sound odd from the lips of a Communist:

Thousands, tens of thousands of people set an example by doing exemplary work. We know them, respect them, applaud them. And now, in addition to praise, they will get a dozen suckling pigs—that's very good. . . . And here, even if we speak of the "loafer on principle,"⁴⁰ why, this will set him on fire, even he'll begin to stir and won't be able to lie still. . . . In serving his own interests the kolkhoz member will work better for the kolkhoz and thereby, through his own private interest, he will be strengthening the kolkhoz economy, he will be fighting for the

³⁹ Under the new system the chairman of the average kolkhoz will receive, in addition to a salary of 120 to 150 rubles, a bonus from 2 to 2½ times that received by the rank-and-file members.

⁴⁰ "Loafer on principle" is the name applied by Communists to those workers or kolkhoz members who ascribe their lack of effort to a dissent on principle from the Soviet methods of work.

strengthening of the kolkhoz order, for the strengthening of our Soviet government.⁴¹

The new decrees undoubtedly have many good features. The effort to increase the personal stake of the member in the work of the kolkhoz properly takes into account the small-property-owner psychology of the peasant, who only a few years before was driven by force into the kolkhoz.

However, in order that the new measures should really bring positive results, it is necessary that their practical application be similarly permeated by an effort to conciliate the peasants. The kolkhoz quota of obligatory deliveries per hectare set by the original decree and the quotas set for bonus payment to kolkhoz members under the last decree are so high that many of the kolkhozes will have to buy meat and milk in the market in order to make their obligatory deliveries in kind to the government, while individual members, in spite of all their efforts, will not manage to beat the quota so as to earn their bonus.

According to official data, some tens of thousands of kolkhozes still (February, 1941) had no cattle ranches, no poultry farms, no hog-breeding farms; yet they were required to deliver to the government, in 1941, definite quotas of meat, milk, poultry, eggs and hogs, based not on the size of the herds but on the acreage they occupy.⁴² The new decrees aim to stimulate the kolkhozes to establish all forms of agricultural production. But a potential prosperity is not a reality which can be taxed and from which obligatory deliveries can be exacted. What is required is a cautious and flexible application of the law.

The norms of production in all branches of agriculture have been established considerably above the average yield in the Ukraine over the last few years and therefore only the most advanced kolkhozes and their hardest working members are able to earn a bonus. Thus the new decrees serve to increase still further the differences in income and living standards among the kolkhoz peasants.

⁴¹ *Pravda*, February 11, 1941.

⁴² *Izvestia*, February 7, 1941.

While the new system of bonuses has so far been introduced in the Ukraine only, dictated by the desire to overcome the discontent among the Ukrainian peasants over the policy of the government, *Pravda*, on February 11, 1941, authoritatively announced: "Undoubtedly the decision with regard to extra pay to kolkhoz members for good work will be extended to all the kolkhozes of the Soviet Union."

The new decrees have another not unimportant aspect. In spite of countless promises by the Soviet government to leave to the kolkhozes themselves the decision of what system of work to follow and the methods of compensating their members for work done, the new decrees are introduced by decision of the government from above; they completely ignore the "co-operative independence" of the kolkhoz and still further reduce the individual kolkhoz member to the position not of a member of a co-operative but of a government employee working under the bonus system.

What is the trend that can be observed in the development of present-day kolkhozes? If we analyze the relationship between the government and the kolkhozes and the evolution that is taking place in rural Russia, we can note the possibility of one of two alternative courses facing the collectives in the near future. If, in that struggle between the dictatorship and the peasants which has gone on either openly or under the surface all through the years of the Soviet regime, the dictatorship should triumph, then in a relatively short time—say two or three five-year periods—the kolkhozes will be turned into government enterprises (sovkhozes). The peasantry as a social class will disappear—they will become hired hands of government agricultural enterprises. But if, in the present domestic and international situation, the peasants should prove the victors, the kolkhozes will undergo a great change but will remain the dominant form of agricultural production and way of life.

The economic and technical advantages of the kolkhoz for the great masses of peasantry are unquestionable. The kolkhozes are the prerequisite for the preservation of mechanization and progressive agricultural methods; they create favor-

able conditions for high productivity of labor; they have enormous advantages, obvious to the peasants themselves, in the storage, transportation, and marketing of the products, in credit facilities, in financing of production; and because of this the majority of the peasants will not wish to abolish them. Instead, they will move in the direction of eliminating aspects which are inimical to the peasantry. They will reject all interference by the state in the management of the kolkhozes and will demand the right of exercising control over all the means of production. Finally, they will demand the right to dispose of their products and of their incomes. They will limit the share that the peasants, as citizens, are compelled to give up to the government; in other words, they will change the obligatory features of the kolkhozes, turning them into free, self-governing, co-operative organizations.

It goes without saying that under free conditions other economic forms will exist side by side with the kolkhozes as the basic form, including small private farms.

If the time comes for the peasantry to decide the fate of the kolkhozes I do not think that the peasantry, moved by long-suppressed hatred engendered by the outrage of forcible collectivization, will seek the "liquidation" of the kolkhozes. It is possible that in some cases the only co-operative features remaining may be the joint cultivation of the soil by tractor and harvesting with combines; in other cases all the processes of production and marketing of the products may be carried on jointly; in still others all the present-day functions of the kolkhoz may be preserved but on a basis of free self-government. But in the great majority of cases the more progressive form of economic production will survive: common sense and practical experience will prompt the Soviet peasant not to destroy the kolkhozes but merely to reform them and make them his own.

But if it should turn out that the Soviet government's policy of repression has engendered so deep a hatred that the peasants would begin to destroy the kolkhozes, the tractors, and the combines—as workers in the past destroyed machines, if it should prove that the peasants desire a return

to individual farming and bring about the "Black Partition,"⁴⁸ then it would mean many years of civil war in the country, dooming the cities to starvation.

The fruits of collectivization—bought at such harsh cost—may be swept into the fire of another civil war which would result from the partition of the kolkhozes and might turn the peasants against the cities and the revolutionary gains of the workers.

Since the Soviet government does not want this to happen, it will seek a way of bringing about a lasting accord with the peasantry.

The Russo-German War, which began June 22, 1941, strengthens my belief that the last-named alternative is the most likely to be realized.

⁴⁸ The "Black Partition" was the name in Russia for the desire on the part of the peasants to take the land away from all—even small—proprietors and repartition all land among the peasants.

CHAPTER FOUR

INTERNAL COMMERCE AND RATIONING OF CONSUMERS' GOODS

ORGANIZATION OF DISTRIBUTION

AMONG the first acts upon the nationalization of the country's economy were the decrees of April 2 and November 21, 1918, abolishing all private trade, and substituting government distribution through stores, reorganized consumer co-operatives, and newly created state distribution centers.

Partly in the urge toward rapid socialization, but chiefly under the pressure of the acute need for consumers' goods, the system of regulation of the distribution of food through ration cards was introduced. This card-rationing system of distributing manufactured and food products, supplemented by the opportunity afforded the population of eating meals in the various government and co-operative restaurants and dining rooms organized in the cities and at the factories, continued until 1921. Then, as the result of general discontent, it was replaced by the NEP, i.e., the economic system which, in addition to state trade, permitted the existence of private trade and markets.

This coexistence of government, co-operative, and small private retail trade persisted until the year 1929, i.e., up to the period which came to be known as "the course to the left," when once more all private trade was suppressed. This time the introduction of the rationing system was evoked not so much by considerations of a food shortage as by the desire, on principle, to do away with distribution through private trade. The Soviet government, in starting to carry

out the First Five-Year Plan, decided to put an end to all the concessions of the NEP and to take into its own hands the entire provisioning of the people. Private trading and markets were prohibited and distribution through the system of ration cards began once more.

In the years 1929-1930 almost all legal private trade was abolished, only village markets and peddlers remaining. But at the same time a widespread, illegal, petty trading from hand to hand sprang up. The complete disorganization of trade still further aggravated the shortage of consumers' goods. The task of provisioning the entire population proved to be beyond the capacity of government and co-operative stores even through the rationing system. In order to assure, first of all, the supplying of the needs of the workers, Closed Distribution Centers were established at the factories, from which goods were sold only to the workers in the plant registered with the particular distributing center.

Gradually distribution centers were set up, in government institutions, with the Red Army, for foreigners, for scientists, for actors, and so on. Each center distributed a greater or smaller quantity of goods depending on the category under which its members were listed. The prices at which these Closed Distribution Centers sold their wares, by ration card, were likewise determined by the category of the consumers. Thus, there gradually came to be rubles of different values: the ruble of the war industries, of heavy industry, of the textile industry, the ruble for office workers, for scientists, for peasants.

In practice, owing to disorder and abuse in storing, transporting, financing, and bureaucratic handling of goods, even the workers and "responsible officials" received insufficient amounts of the necessary supplies from their Closed Distribution Centers. They were forced to supplement these by purchases in the "free markets" which sprang up once more in spite of all prohibitions and which began to play a gradually increasing role in the work of supplying the population. The prices at the "free market" were, of course, considerably higher than those in government stores.

By 1932, under pressure of general discontent and yielding

especially to pressure from the peasants of the kolkhozes, the government was forced to allow the sale of agricultural products in open markets at market prices and to let the government stores sell goods of which there was an abundance at commercial prices and without ration cards.

At the end of 1934 the right of the kolkhozes and their members to sell their surplus products at market prices was confirmed in the so-called "Stalin Code for Kolkhozes." Artisans and handicraftsmen received the same rights. At the same time the rationing system was done away with on January 1, 1935, for bread, meal, and flour, and on October 4, 1935, for all food products, when the Closed Distribution Centers were abolished. On January 1, 1936, the card-rationing system was eliminated for manufactured articles as well.

Thus, since the middle of the second five-year period, the needs of the population have been supplied through government wholesale houses and retail stores, selling goods to everyone on a commercial basis.

Almost 100 per cent of the manufactured articles of the country are distributed through the government and co-operative distributing system and more than 70 per cent of the agricultural products are likewise distributed through the network of government and co-operative stores.

After several years of vacillation, friction, and reorganization, the relationship between the government stores and the co-operatives has become stabilized not on a basis of division of functions, but on a territorial basis.

At first the administrators of Soviet economy attempted to carry on all retail trade, or rather distribution, through the net of consumer co-operatives which were quite extensively developed in pre-Soviet Russia. Lenin had great hopes that the consumer co-operatives would facilitate the difficult task of supplying the needs of the people and that it would serve as a transition link to a Socialist system of distribution.¹

Soon, however, the Soviet government, for political reasons, found it impossible to retain the co-operatives, with their usual features of publicly organized control. "Co-operatives," said Lenin, "with the certainty of chemical laws, secrete

¹ N. Lenin, *On Co-operatives*, 1921.

Mensheviks, Socialists, and Social Revolutionists; therefore, in making use of the co-operatives we must banish the Socialists and keep them under lock and key."² The Soviet co-operatives were quickly deprived of that which is their essence: the right of self-government, independence, control by the membership over their officers, whom they elect. Soon the Soviet co-operative became a government store remaining co-operative only in name. With the shortage of goods competition soon sprang up between the government stores and the co-operatives, still further deteriorating the work of both organizations. Seeking a way out, the Soviet government several times attempted a partial restoration to the co-operative of its independence but nothing came of these attempts because of its vacillations. *Pravda*, the organ of the Communist party, thus characterized the sins of the Soviet co-operatives: "Having crowded out the private tradesman and gained a monopolistic hold on the market, the consumer co-operatives began to . . . ignore the needs and requirements of the mass consumer."³ The struggle between the government store and the co-operative continued to grow, each constantly throwing the blame on the other for the poor service in supplying the needs of the people. By the decree of September 29, 1935, the government found the following solution for this conflict of many years: All the trade in the cities was turned over to the government stores while the rural trade was assigned to the consumer co-operatives which, of course, remained state-controlled organizations.

In addition to the government and co-operative trade, a large part is played at present, in the food markets, by the kolkhozes. A certain role, though not great, is played by street peddling of cigarettes, dry goods, candy, and other products.

The network of government and co-operative stores is not great. Whereas in 1912 there were more than a million trade units in Russia, in 1927 there were only 648,000; in 1933, 285,000; in 1938, 355,000 including 27,000 itinerant units by wagon and on foot. Stores are concentrated chiefly in the towns: 154,000 stores for 50 million inhabitants in the towns

² *Pravda*, September 27, 1921.

³ *Pravda*, May 31, 1931.

and 201,000 for the 120 million inhabitants in the country districts.

With such a sparse network one commercial establishment must serve a region of nearly 60 sq. kilometers (23 sq. mi.) and on the average close to 500 persons, while, for example, in the United States the average per retail trading establishment is 86 persons. In the country districts there is one store for each 800 to 1,000 persons, and there are regions which have received the name of "trade deserts" because they are served only by markets and peddlers.

Through the years of the five-year plans there has been an increase in the production of consumers' goods. The entire turnover of Soviet retail trade in 1929 amounted to 16.2 billion rubles; in 1932, 47.9 billion rubles; in 1937, 143.7 billion rubles; in 1938, 163 billion rubles; in 1940, 174.5 billion rubles. The plan for 1941 proposes to bring the retail turnover up to 197 billion rubles. Thus by 1938 the volume of Soviet retail trade was 17.7 times greater than in the first year under the First Five-Year Plan. The rapid growth in trade turnover in part reflects a growth in the supply of consumers' goods, but the figures cited above give a distorted picture of the growth of retail trade, for, since the Second Five-Year Plan the sales tax has constituted an ever-increasing part of the selling prices and thus served to swell the figures of retail turnover. (A more detailed account of the sales tax appears in Chapter VI, Finance.)

According to the data for 1937, public feeding in dining rooms and restaurants contributed 8 per cent of the entire retail turnover; the markets absorbed 16 per cent, while 76 per cent represents the turnover in government stores and co-operatives. Of the entire turnover for 1937, 72.6 per cent falls to urban trade and 27.4 per cent to rural. In 1940 kolkhoz sales in the markets amounted to 18 per cent of the entire turnover of retail trade.⁴

Data on the distribution of the trade turnover by products has unfortunately not been published for recent years. After the outbreak of the Russo-German War, the Soviet government on July 16, 1941, found it necessary to reintroduce the

⁴ *Pravda*, June 8, 1940.

rationing-card system for the distribution of essential articles in the largest cities.

PROBLEMS OF RATIONED DISTRIBUTION AND OF STATE-OPERATED RETAIL TRADE

In evaluating the activities of government distributing and trade organizations under the Soviet regime, one is forced to the conclusion that, because of the methods of nationalization and the tempos of reorganization, the new forms of distribution have failed to demonstrate their potential capacity. The abolition of private trade and its substitution by publicly owned means of distribution, something of which social reformers of all lands had dreamed, turned out in practice to be a problem of exceptional difficulty and complexity because of failure to take into account objective factors.

The abolition of private trade by legal and administrative means proved possible but the carrying out of its functions by alternative means, the organization of an adequate, uninterrupted supply to the people of articles of consumption, has remained an unsolved problem after two decades.

Neither when there is a shortage of goods nor when there is abundance do the government stores or the nationalized co-operatives manage to carry out their functions.

The Soviet government in the first years of its existence, in carrying out the rapid and complete nationalization of industry, transportation, foreign commerce, and agriculture, encountered many difficulties and disruptions.⁵ In the field of production, as has been shown in the preceding chapters, after great and strenuous effort and failures, great and undoubted successes have been attained.

However, in the distribution of finished goods among the population, the policy of government monopoly has not met with success to this day. Whether the Soviet government tried the system of controlled distribution by means of ration cards or carried on monopolistic trade on a commercial basis, it has never succeeded in organizing a normal, well-functioning distribution of goods to the consumers. The monopolistic

⁵ See my book, *Economic Trends in Soviet Russia*, pp. 164-193. New York: Richard R. Smith, 1930.

organization of Soviet government trade has proved incapable of assuring the workers a normal supply even of goods of which there is an abundance. The period when the government regulated distribution by a system of ration cards, the period of "War Communism," 1918-1921, as well as the period of the "General Line," 1929-1932, have remained in the people's memory as years of terrible hardship and privation, of scarcity of merchandise, of long hours of vigil while standing in queues.

The system of rationed distribution, introduced for the purpose of assuring in the first place at least to the workers a supply of products of which there was a shortage, proved, because of inexpedient methods, to be a factor only aggravating the acute shortage and artificially widening the range of scarcity merchandise. It was enough for the government to add some product to the list of rationed goods for the demand immediately to multiply many times over, coming not only from those who needed it, but from all who were entitled to buy it. What greatly aggravated the situation was the general distrust, based on experience, toward all wholesale distributing agencies and the consequent rush by all retail stores from the smallest to the largest to lay in supplies. In practice, the organization of rationed distribution both in the infancy of Soviet economy and at the time of its maturity led to the "freezing" of all trade, the gradual dying off of rationed distribution and the leakage of merchandise by devious channels from government distributing agencies and stores in to semilegal and illegal markets.

After several years of struggle and hesitation the government was forced to give up rationing and instead adopt the system of state trade monopoly. Twice during those years the Soviet regime threw all the power of centralized government behind the introduction of rationed distribution and the liquidation of the market, and twice it was forced to retreat. The chief explanation of this failure is that trade and distribution constitute precisely that economic field in which compulsory nationalization and the elements of economic and cultural backwardness in the country come into sharpest conflict. Attempts at centralized planning of distribution

clashed head-on with economic laws governing commodity markets which have not been surmounted even in the U.S.S.R. Somewhat better than the agencies for rationed distribution, but still extremely unsatisfactory in the accomplishment of their task, are the government stores and the government-controlled co-operatives, the system which has existed in the U.S.S.R. since 1935.

The monopolistic apparatus created by the Soviet government to carry on trade is cumbersome and bureaucratic. Its directors try to copy the methods of private trade by introducing business principles and stimulating greater turnover through the offer of premiums, but the results are exceedingly unsatisfactory. Stores are replenished with merchandise irregularly, and the most necessary goods are lacking. In twenty years the trading organizations have failed to learn the special requirements of the different regions, nor do they know the seasonal demands of the market. Because of centralized control of distribution every clerical error, every slip in the plan of distribution, deprives entire regions of their goods. The store staffs do not go beyond a formal performance of their duties, frequently ignoring the interests of the consumer. They are neither accustomed to nor interested in laying in supplies in time or carefully storing perishable commodities. From the wholesale to the retail organizations the merchandise passes through many hands, which swells their selling price. Commercial overhead expense in general is extremely high. Various "leaks" and "dissipations" far exceed usual norms. The pilfering of goods from the stores and wholesale stealing of stocks from the warehouses have become a common occurrence.

What, then, is the reason for this?

Even in industry the task of complete nationalization proved difficult for the Soviet government to accomplish and resulted in repeated jams and interruptions because of the manifest unpreparedness of the country for a national mobilization of its material wealth, and the lack of qualified personnel. In view of this experience the abolition of all private, even retail, trade in favor of government operation was a rash undertaking.

Before the first World War, Russia had a small and widely scattered retail network. The main mass of the population, the peasants, were served chiefly by the village markets, small country stores, and pack peddlers carrying an insignificant stock of goods, but penetrating into the very depth of the country. Enormous distances, roads impassable for months at a time, an insignificant amount of transportation by wagon, a sparse network of railways, inadequate postal and telegraph service, a few oases of co-operative stores in country districts, such were the factors which determined the volume and methods of trade in the villages and country districts of Russia. Even the towns, in their overwhelming majority, had only a primitive system of retail trade. The trade apparatus of the European type, with central and local warehouses, armies of traveling salesmen, buying agencies and express companies, catalogues and advertisements, were to be found in Russia only in a few large cities, and even then in the most rudimentary form. The number of persons experienced in retail trade was not great and in large measure consisted of tricky, rapacious, and rather crude people.

The Soviet government, in taking into its own hands the entire commerce of an enormous land, applied little money and effort to this vital task. It directed the best organizing skill and thought to the army, industry, and government departments. The Communists least fit for organizational work were assigned to the field of commerce. The methods they adopted bore a strong resemblance to military requisition and rationing. It required repeated reminders from both Lenin and Stalin for the Communists to assimilate the idea that trade is a complex and vital economic function and that it would be well for them to "learn how to trade." The nationalization of the co-operatives of the cities and villages deprived the country of even those few civilized commercial oases in which for decades the co-operators, reared in a spirit of social service, served the needs of the community.

The Bolsheviks tried to copy European and American trade practices. But the forms and methods of advanced centralized commerce do not lend themselves as automatically to transplanting as do production methods, in which

machines and appliances play a much greater part. The ways of commercial service depend directly on the density of population, the state of transportation, mail and telegraph service, the customs, habits, and cultural level of the population. A government or private industrial plant can be built even in a lonely thicket of the Siberian forests. With modern technical equipment, with machines of foreign make, manned by native workmen but under the direction of foreign specialists, such a plant can operate efficiently. Such a transplanting of the most advanced technique of production to a backward country is perfectly feasible and occurs frequently, as for example in present-day Korea or Afghanistan. But it is not possible to transplant to a half-savage country the ways and practices of retail trade in, say, the United States. Trade with the native consumer must adjust itself to his habits, ways, customs, requirements, and tastes. "Re-education" in the realm of trade takes place exceedingly slowly, in step with the general development of culture and changes in the mode of life. The nationalization of trade in the U.S.S.R. was decreed with the speed of lightning. No account was taken either of actual conditions or of the requirements of the population, and for that reason alone it was doomed to failure.

Government trade takes root with enormous difficulty for still another reason. The struggle which takes place in connection with retail trade is for the possession of commodities. People concerned for their share of consumers' goods struggle to get it through the medium of retail trade. The Bolsheviks think that the whole reason for their failure is that unbeaten remnants of the "parasitic classes" have taken refuge in the illegal private trade which, like a spiderweb, entwines the government trade of the U.S.S.R. and that these "fragments of the past" clog the government trade apparatus and resort to speculation around it.

As a matter of fact, the situation is much more complex. The nationalization of trade took place under conditions of an acute shortage of goods, especially of articles of mass consumption. The government policy of forcing the output of machinery and pig iron at the expense of production of

clothing or canned foods predetermined a prolonged shortage of the necessities of life. Under the influence of a chronic merchandise famine after so many years of enforced abstinence, the population, even now, when goods have become more plentiful, puts demands on government trade which it is not able to fill. A constant struggle goes on around the agencies of distribution and trade on the part of everyone as he strives to achieve the "better life" and at least an endurable existence for today. The workers in the factories, the employees in party and Soviet offices, and the peasants in the kolkhozes all struggle for their rights as consumers. In industry, because of the character of the work, this is not so conspicuous although there, too, the incessant struggle goes on for a better position, for higher pay, for bonuses, for passes to health resorts, but around the government stores and co-operatives this struggle for goods becomes keen. Apart from the natural growth in the wants of the population of the U.S.S.R. as a result of industrialization and the spread of culture, there is an additional demand owing particularly to certain unwholesome factors. The consumer, because of his distrust of the government organs of distribution, lays in supplies, for his own needs or for barter. The demand for goods thus grows out of all proportion to actual needs. This intensified and frequently, because of shortages, unsatisfied demand creates a favorable background for the continued existence of clandestine middlemen and secret private trade.

Government trade is paying the penalty for the too rapid methods of nationalization for which the necessary preliminary spadework had not been done: the government stores are constantly in hot water. If the government store offers some products at a higher price than the market at which the kolkhozes and their members trade, those products remain on the shelves and cause the freezing of many millions of capital; if it sells more cheaply than the markets, the merchandise is bought up in short order by middlemen and turns up in the market. Though it has existed for nearly a quarter of a century, government trade, even toward the end of the Third Five-Year Plan, is unable to carry out its assigned task. The resolution of the Central Committee of the Communist

party and of the Council of People's Commissars, of January 7, 1941, states that "the population suffers from a chronic shortage of clothing, knit goods, shoes, dishes, furniture, needles, lamps, toys, stationery, bricks, nails, roofing iron, wagons, harness, locks, shovels, brooms, stove and window fixtures. The merchandise on hand lies in the warehouses and is not delivered to the localities where there is an unsatisfied demand." The Central Committee decided for the thousandth time to take energetic measures to satisfy the "legitimate demands of the people for the necessities of life."⁶

The inability of the government trade monopoly to cope with the needs of the consumer is revealed most strikingly in the country districts. The methods of government trade were so out of harmony with the economy, customs, and cultural backgrounds of the kolkhozes that the Soviet government found itself obliged to create in the country districts a counterfeit public trading organization, the so-called Soviet co-operative.

The following reasons inspired these measures. As already stated, the kolkhoz peasant has to a great extent retained his psychology of private ownership. The recognition since 1932-1934 of the right of the kolkhoz and its members to sell their share of the kolkhoz output in the market, coupled with the opportunity given to the individual member to conduct his own farming and to sell the products of his holding on the market, causes the laws of the market to play a large part in the country districts. In addition, especially in the country, the network of retail distribution is sparse and the cultural level of the population is not high. Because of this it was in the country districts that the government retail trade and its methods met with its most serious failure. In turning to the NEP, Lenin resolutely defended the necessity of going back to freedom of trade especially for the sake of restoring exchange between town and country. The authors of the First Five-Year Plan took the same position, proposing to "retain private trade in the rural districts" and cautioning against "minimizing the part played by the market and by a proper

⁶ "Measures for increasing the production of articles of mass consumption and of food products," *Bolshevik*, 1941, No. 1.

organization of commercial exchange between town and country."⁷ But, driven by the necessity of taking from the peasantry a maximum of its accumulation of money and goods in order to carry out the plan of superindustrialization, and meeting with resistance by the peasants, the Soviet government was prompted, along with collectivization, to take over all rural trade. It soon became clear that the peasants regarded the government stores not as organizations intended to supply them with articles of consumption, but as a press designed to squeeze out of them not only all their accumulated savings but also the major portion of their current income from labor. The peasant began to shun the government stores both as buyer and as seller. There loomed the manifest threat of the creation in the country of an illegal trading apparatus.

The Soviet government made a partial concession: it abolished all the government country stores and turned over all trade to the rural co-operatives, which perform the dual function of selling manufactured goods to the peasants and buying their "surplus farm products." Of course, these co-operative organizations" have few of the features of genuine consumer co-operatives. They are deprived of all initiative; nevertheless, the fact that their directors are chosen from local people and to some extent are in contact with the consumers and subject to public control induced the peasants to reconcile themselves to the stores of the Soviet "co-operatives" more readily than to those of the government.

The operation of rural co-operatives is marked by the same undesirable features as are the government city stores: they are just as bureaucratic, just as poorly managed, and just as ignorant of the needs of the consumer.

State-run retail trading in the U.S.S.R. has not proved equal to its task—that conclusion is based on the experience of twenty years of service. It is the field in which the unpreparedness of the U.S.S.R. for nationalization has been manifested strikingly and painfully. But it would be absurd and antisocial to seek the solution to this problem in the restoration of the liquidated private trade with its private gain and

⁷ *Draft of the Five-Year Plan*, Vol. I, 1929.

speculation. The cure of the trade apparatus can be achieved through public effort: first of all through the creation of consumer co-operatives, free and really independent. These organizations, calling into play all the initiative of the consumer, all his public control and linked to his local needs, could best and most expeditiously serve his interests. The government trade units would be retained chiefly as the wholesale distributing centers for government manufacturing trusts, such as the textiles, cannery, furniture, and other trusts. The main network of trade in both town and country would consist of free, independent city and village co-operatives. Freed from bureaucratic direction and control, linked to the consumer and his needs, the co-operatives could become the strongest weapon in the struggle of the toilers with food scarcity and high prices. However, the experience of the past years has shown that under the conditions of present-day Russia, until the system of co-operatives develops, it is necessary in the interests of the consumer to permit the existence of the small private trader. He has not yet exhausted his potentialities of socially useful service. He would deliver the merchandise to the consumer in remote parts of the country and would satisfy consumer wants in places which until now have been served neither by the government store nor by the co-operative. The government trading apparatus would be relieved of the functions of small retail trade and could assure the better working of wholesale trading centers.

Competition on the part of the private trader would force both the government stores and the co-operatives to work better and more cheaply, with greater regard for the consumer. It is not by administrative measures of suppression but by independent social activity and enlightened methods that the co-operative must prove to the consumer that it can serve his needs better, cheaper, and more completely. The old, prewar co-operative, oppressed under the czars, yet public-spirited, was able in practice to demonstrate its business advantages; the co-operative under the new conditions, if freed from guardianship, will be able to demonstrate the immense advantages of a trading organization imbued with ideals of public interest.

CHAPTER FIVE

FOREIGN TRADE OF THE U.S.S.R.

THE MOVEMENT OF FOREIGN TRADE AND CHANGES IN ITS PATTERN

THE monopoly of foreign trade is one of the most important pillars of the Soviet economic system. As early as April 22, 1918, the Council of the People's Commissars issued a decree "On the monopoly of foreign trade" signed by Lenin.

All foreign trade is hereby nationalized. Commercial transactions involving the buying and selling of any kind of products (of extractive and manufacturing industries, agriculture, etc.) with foreign governments or individual firms abroad shall be carried on in the name of the Russian Republic through specially empowered agencies. With the exception of these agencies all commercial transactions for imports and exports are forbidden.

In spite of the fact that the system of monopoly of foreign trade aroused opposition on the part of many Soviet managers, and that there were times when the ruling circle of Communists came near deciding to modify it substantially (1922-1923), it has survived in the main through the period of War Communism, the time of the NEP, and the Five-Year Plans.

The text of the Constitution of the U.S.S.R. contains a provision (Article 14) by which the "foreign trade of the U.S.S.R. is conducted on a basis of state monopoly."

The nature of the system of monopoly of foreign trade as it shaped itself in the first years of the Soviet regime, and as it has remained, almost without change, to the present-day, can be reduced to the following few propositions:

All export and import of the U.S.S.R. is carried on by the

state through a special Commissariat created for that purpose, the Narcomvneshtorg (People's Commissariat for Foreign Trade). Not only no private parties but not even any government institution has the right to buy or sell abroad, with the exception of the Commissariat of Foreign Trade and its agencies. The Commissariat of Foreign Trade formulates the plan for foreign trade which forms a part of the general economic plan of the U.S.S.R. Within the limits of the plan for foreign trade, confirmed by the Gosplan and the Council of People's Commissars, the Commissariat for Foreign Trade carries on trade through its agencies, the branches of the Commissariat, its Trade Missions, and export and import corporations specializing in certain lines, or in exceptional cases it issues licenses to buy or sell directly to the state institution involved. The Commissariat for Foreign Trade either collects the merchandise for export itself or through its authorized agents, or receives it from the government collecting organizations or the co-operatives.

The Commissariat for Foreign Trade fixes the prices of export and import goods. The customs administration is under its jurisdiction. The import and export of goods by sea is carried on by its agencies in vessels which it owns or charts.

This system has made the U.S.S.R. the only country in the world in which foreign trade is entirely in the hands of the state and represents a powerful means of carrying out its policies. During the first years of the Soviet there were numerous breaks in the monopoly of foreign trade, and a well-developed contraband trade existed on all frontiers. Gradually the government established such control over its frontiers that at present its monopoly of foreign trade is practically complete.

The organization of foreign trade monopoly is the most bureaucratic of all the Soviet organizations. Centralized, enormous in size, not qualified to carry out its functions, the organization of the Narcomvneshtorg works slowly, expensively, and inefficiently. In spite of its complete monopolistic control over the sale of Russian products it frequently performs its task worse than did the private export-import firms

of former times. It often pays higher prices for goods it orders abroad than private buyers pay, because, owing to the incompetence of its staff, it is unable to complete a single large-scale transaction without the aid of an intermediary, and because it buys on credit, making part payment with notes which have no standing in the world money markets and have had to be discounted by foreign sellers until recently at enormous rates (as high as 30 per cent), reflected in the selling price.

Nevertheless, the tremendous gains in the national economy of the U.S.S.R. have contributed to the growth of its foreign trade as well. Russia's foreign trade in recent years has greatly changed both in volume and in character. The foreign trade of pre-Soviet Russia reflected her economic backwardness; in 1913 the entire volume of Russia's foreign trade was equal to only 12,619 million rubles and constituted but 3.8 per cent of the volume of the world foreign trade. Russian imports in 1913 (within the boundaries of the Soviet Union) comprised about 7 per cent of all domestic production, the export about 6 per cent.¹

However, the volume of foreign trade rose rapidly in the years preceding the first World War; at the same time the balance of trade continued consistently favorable for decades.

The industrial backwardness of the country and the predominance of agricultural production are reflected in the character of its prewar foreign trade. Exports consisted chiefly of grain, lumber, hides, flax, and other agricultural products in their raw, unprocessed state. Russia's part in the world grain market was great; in 1908-1912 it was as much as 35 per cent of the world exports of the most important grains.¹ Imports consisted chiefly of materials for manufacturing, industrial and technical equipment, and finished manufactured articles.

For machinery, machine tools, motors, and technical apparatus Russia was entirely dependent on foreign trade mar-

¹ L. Krassin, *Problems of Foreign Trade of the U.S.S.R.* Narcomvneshtorg, 1928. *Vneshnaya torgovlia za 20 let (Foreign Trade for the Past Twenty Years)*, p. 20. Scientific Institute of the Foreign Trade Monopoly, 1939.

kets. A considerable part of the raw materials exported from Russia (hides, lumber, iron ore, furs, sausage casings, and even grain) returned later in the form of finished goods. Such a make-up of exports and imports is explained by the undeveloped state of industry in pre-Soviet Russia. In turn, the nature of the foreign trade had a retarding effect on the industrial development of the country.

The first World War, the Revolution, and especially the Civil War reduced Russia's foreign trade to an insignificant

TABLE 14. *Foreign Trade of the U.S.S.R.**

Years	Export		Import		Total Trade		Excess of Exports + Excess of Imports - (Mil. R.)
	Thous. Tons	Mil. Rubles	Thous. Tons	Mil. Rubles	Thous. Tons	Mil. Rubles	
1909-13 (annual average)	24,590.8	6,513.9	11,240.7	4,994.1	35,831.5	11,508.0	+1,519.8
1913	24,112.8	6,596.4	15,342.8	6,022.5	39,455.6	12,618.9	+ 573.9
1918	29.9	35.5	188.9	460.8	218.8	496.3	- 425.3
1919	0.9	0.4	8.5	14.0	9.4	14.4	- 13.6
1920	11.1	6.1	85.3	125.7	96.4	131.8	- 119.6
1921-I-IX	91.4	43.6	575.2	692.5	666.6	736.1	- 648.9
1921-22	726.7	277.9	1,989.1	1,187.4	2,715.8	1,465.3	- 909.5
1922-23	2,160.8	583.4	907.5	650.9	3,068.3	1,234.3	- 67.5
1923-24	6,736.9	1,626.1	979.2	1,022.7	7,716.1	2,648.8	+ 603.4
1924-25	6,169.0	2,447.3	1,863.7	3,168.5	8,032.7	5,615.8	- 721.2
1925-26	7,855.8	2,963.6	1,547.3	3,312.6	9,403.1	6,276.2	- 349.0
1926-27	9,573.0	3,417.4	1,846.5	3,125.6	11,418.5	6,543.0	+ 291.8
1927-28	8,873.7	3,424.1	2,014.3	4,141.3	10,888.0	7,565.4	- 717.2
1928 (X-XII)	2,861.3	948.3	405.1	890.5	3,266.4	1,838.8	+ 57.8
1929	14,145.0	4,045.8	1,936.7	3,857.0	16,081.7	7,902.8	+ 188.8
1930	21,486.4	4,539.3	2,855.9	4,637.5	24,342.3	9,176.8	- 98.2
1931	21,778.9	3,553.1	3,564.4	4,839.9	25,343.3	8,393.0	-1,286.8
1932	17,967.9	2,518.2	2,322.1	3,083.5	20,290.0	5,601.7	- 565.3
1933	17,916.3	2,167.5	1,236.1	1,525.1	19,152.4	3,692.6	+ 642.4
1934	17,340.2	1,832.4	1,025.2	1,018.0	18,365.4	2,850.4	+ 814.4
1935	17,190.4	1,609.3	1,259.1	1,057.2	18,449.5	2,666.5	+ 552.1
1936	14,204.0	1,359.1	1,155.3	1,352.5	15,359.3	2,711.6	+ 6.6
1937	12,969.4	1,728.6	1,285.8	1,341.3	14,255.2	3,069.9	+ 387.3
1938†	9,682.3	1,331.9	1,127.2	1,422.9	10,809.5	2,754.8	- 91.0

* Table compiled from the following sources:

Foreign Trade of the U.S.S.R. for Twenty Years, 1918-1937, p. 12. Moscow: Scientific Institute of Foreign Trade Monopoly, 1939.

† S. Bakulin and D. Mishustin, *Statistics of Foreign Trade*, p. 237. Research Institute of Foreign Trade, 1940.

Note: The above table was compiled by the Scientific Institute of the Commissariat of Foreign Trade which, for purposes of comparison, used the so-called coefficient of 1936, i.e., the new value of the ruble established in settling foreign trade accounts. All previously published money values of exports and imports, including figures for 1909-1913, were multiplied by the new coefficient: 4.38. In this table, it should be noted, only the figures from 1924-1925 on are completely comparable, since in earlier years both the territory and the methods of computation were different.

amount. In 1919-1920 the volume of foreign trade was about $\frac{1}{80}$ of what it had been before the war.

In 1922 foreign trade began to revive, but at first progress was slow. In 1939, on the occasion of the twentieth anniversary of the foreign trade monopoly, the Commissariat of Foreign Trade published a table showing the general movement of foreign trade from 1909 to 1938.

As the figures in Table 14 show, so far neither exports nor imports have attained the volume of prewar trade. The foreign trade in the Soviet period reached its maximum in 1930, when it was but 72.7 per cent of the prewar volume. In 1938 the volume of foreign trade was at the 1923-1924 level and was only 23.9 per cent of the prewar volume.

At the same time that the national income and industrial and agricultural production had risen considerably above the pre-Soviet level, exports and imports were one-fourth of the average volume for the years 1909-1913. That is the first important fact to be noted about the foreign trade of Soviet Russia. The second is that after the Soviet economy had emerged from its state of collapse in 1920, a gradual recovery of its foreign trade set in. This continued until 1930 when the volume of foreign trade again began to decrease. Finally, the third important conclusion that may be drawn from a study of the balance of trade is that, while in the time of the Czars the Russian trade balance was always favorable, after the establishment of the Soviet system—with the exception of 1923, 1924, 1926, and 1929—the balance of trade became unfavorable. Only since 1933 has the balance again been steadily favorable.

The volume of foreign trade is deliberately held down, since it has been decided to limit exports to "surplus products of national economy" while imports are held down to the volume of exports. By the time of the First Five-Year Plan the Soviet government had succeeded in controlling the foreign trade sufficiently to slow down its growth and subordinate it to the interests of industrialization. Since 1933, after taking care of its needs for imported plant equipment, it has succeeded in maintaining a steadily favorable balance of trade. Bearing in mind that before the Revolution exports

from Russia did not consist of surplus products but "were carried on at the cost of underfeeding the population,"² and if we take into account the tremendous new domestic needs caused by the Revolution and the growth in population and the industrialization of the country, the justification of the policy of restraining the export of articles of mass consump-

TABLE 15. *Chief Articles of Export**

(In million rubles)†

Commodities	Annual Average			
	1903-1913	1929-1932	1933-1937	1938
Grain	2,620	453	143	175
Leguminous Vegetables	113	32	15	18
Lumber Mill Products	382	305	231	280
Butter	272	89	43	0.6
Sugar	179	117	35	34
Oil-Cake	155	75	33	30
Furs	31	309	150	130
Hides and Leather	175	30	10	8
Petroleum	160	567	219	102
Manganese Ore	42	51	27	27
Chemical Products (including Fertilizer)	38	44	44	25
Cotton Textiles	142	204	87	52
Flax	370	131	79	27
Iron, Steel, and Their Products	43	28	36	21
Machines and Equipment	12	15	30	32
Tobacco	21	32	10	18.5

* Table based on following sources:

Bulletin of Foreign Trade, organ of the Commissariat of Foreign Trade, Moscow, 1935-1940.

Foreign Trade of the U.S.S.R. for Twenty Years, 1918-1937, pp. 15-30. Socgiz, 1938.

S. Bakulin and D. Mishustin, *Statistics of Foreign Trade*, pp. 270-275.

† Equivalent of 1936 ruble.

² In Russia during the five years 1908-1913 the average production of grain (not including grain used for seed) was 378 kilograms per capita, only 2 kilograms more than in Germany, a grain-importing country. The production of oats in Russia was 400-500 kilograms per horse; in Germany, 2,000 kilograms. Russia was able to export so much grain only because consumption by the population was very low. *Report to the Council of Ministers, 1916*.

tion and retaining them for home use will be apparent. The answer to the question of how consistently this policy has been carried out will be made clearer if we analyze the composition of present-day exports and imports.

Tables 15-17 show that in the case of most of the products the volume of exports has dropped considerably, especially in the case of grain. An absolute increase in exports has taken place principally in manufactured goods: petroleum, machinery, chemicals. Of especial interest are the changes which have taken place in the character of Russia's export trade. In pre-Soviet times an overwhelming part of the exports consisted of agricultural products (Table 16). After the revival of export, following the Revolution, the percentage of agricultural products exported dropped at first, chiefly because of the lack of agricultural production for the market, caused by

TABLE 16. *Industrial and Agricultural Exports in Percentage of Total**

	Annual Average			
	1909-1913	1922/23— 1926/27	1929-1932	1933-1937
Percentage of Industrial Products	29.4	41.3	61.3	72.8
Percentage of Agricultural Products	70.6	58.7	38.7	27.2

TABLE 17. *Exports by Industries in Percentage of Total**

	1909-1913	1935	1936	1937
Total	100.0	100.0	100.0	100.0
Products of Heavy Industries	5.3	27.7	29.6	24.8
Products of Light Industries	10.9	16.4	16.5	13.4
Forest Products	9.8	22.8	26.4	25.3
Food Products	74.0	11.7	12.3	8.9
Raw Agricultural Products		20.4	14.5	27.0
All Other Products		1.0	0.7	0.6

* Same sources as for Table 15.

the disorganization of Russian agricultural economy. But since the time of the First Five-Year Plan, the percentage of agricultural exports has continued to decline in spite of the undoubted increase in agricultural surpluses. The steady trend to be observed in this regard shows that what we have before us is a fundamental change in the character of the Soviet export trade. It is due to the industrialization of Soviet Russia and the deliberate effort under the five-year plans to export semimanufactured or completely finished articles instead of agricultural products.

The figures show that, while before the Revolution exports of agricultural products constituted 70.6 per cent and those of manufactured goods 29.4 per cent, by the time of the Second Five-Year Plan the relation was reversed, with agricultural exports down to 27.2 per cent and the industrial up to 72.8 per cent. Moreover, as we see from Table 17, the percentage of export of the products of heavy industries is growing, while the export of those of light industries and of foodstuffs is decreasing. The export of products of the lumber industry has greatly increased; before the Revolution this consisted chiefly of logs, but at present a great part of the lumber exported is in the form of boards and more finished products. Among the more important processed products exported from the U.S.S.R. are: petroleum products, which in 1937 comprised 35 per cent of all the exports in this category; metals, machines, and industrial equipment, which comprised 23 per cent; chemicals, 10.3 per cent; coal, 7.8 per cent.

Soviet Russia's import trade, even in the first years of the foreign trade monopoly—and especially since the adoption of the five-year plans—has had a "purposeful character," i.e., it has been entirely subordinate to the aims set by the national economic plans. At times when the need for foodstuffs was very acute, in the years of the 1929-1931 famine, the imports consisted not of the products sorely needed by the people but of machines, raw materials, and equipment required for industrialization. The same policy of "superindustrialization" which was pursued in relation to industry and agriculture was followed with equal rigidity with respect to

the foreign trade. The following tables give a picture of the import trade of Soviet Russia.

TABLE 18. *Imports of Industrial and Consumers' Goods**

(In million rubles† and percentage of total)

Years	Total		Goods for Use in Industry		Consumers' Goods	
	Mil. R.	Per Cent	Mil. R.	Per Cent	Mil. R.	Per Cent
1909-1913 (annual average)	4,994.1	100	3,606.9	72.2	1,335.1	26.7
1922-23 to 1926-27	2,616.1	"	1,809.0	69.1	807.4	30.9
1929-1932	4,104.2	"	3,686.6	89.8	417.6	10.2
1933-1937	1,258.8	"	1,119.6	88.9	139.2	11.1
1913	6,022.5	"	4,215.7	70.0	1,806.8	30.0
1929	3,857.0	"	3,407.6	88.4	394.2	10.2
1932	3,083.5	"	2,752.4	89.3	250.5	8.1
1937	1,341.3	"	1,219.8	90.9	121.5	9.0
1938	1,422.9	"	1,250.7	87.9	172.2	12.1

* *Foreign Trade of the U.S.S.R. for Twenty Years, 1918-1937*, pp. 162-218.

S. Bakulin and D. Mishustin, *Statistics of the Foreign Trade*, pp. 270-278.

† Equivalent of 1936 ruble.

Table 18 shows that the importation of consumers' goods increased a little over pre-Revolution times during the years of the NEP, but from the time of the five-year plans it steadily declined until in 1937 it was 9 per cent of the total imports. The extent to which the policy of industrialization is responsible for this trend may be clearly seen from an examination of Table 19, which contains a list of the goods imported during those years.

We see that in the years of the First Five-Year Plan the Soviet government ruthlessly cut down imports not only of

TABLE 19. *Imports of Most Important Commodities by 5 Year Plan Periods**
(Annual averages in million rubles)†

Commodities	1909- 1913	1929- 1932	1933- 1937	1938
Livestock	51	87	50	47
Rice	43	54	8	12
Tea	262	76	27	27
Coffee	35	3	0.5	1.0
Lemons and Oranges	35	5	3	15
Dried Fruits	49	19	3	8
Cocoa	10	5	4	10.5
Herrings	98	20	4	22
Rubber	145	51	60	52
Paper	93	25	0.8	5.0
Wool	225	182	71	72
Cotton	483	228	44	27
Jute	38	26	9	7
Iron, Steel, and Their Products	203	621	191	115
Nonferrous Metals	174	219	149	238
Internal Combustion Engines	34	34	19	10
Pumps	21	23	5	5
Agricultural Machinery	177	102	..	..
Machine Tools	31	327	133	236
Electrical Machinery and Apparatus	68	223	60	57
Precision Tools	31	63	26	22
Tractors	..	229	..	..
Automobiles	52	98	2	11.8
Ships	16	49	25	25

* Same sources as for Table 18.

† Equivalent of 1936 ruble.

such things as tea, coffee, and cocoa but even herring and paper. The great bulk of Soviet imports consisted of machinery, industrial equipment, metals, raw materials for use in industry. As domestic production of raw materials grew and newly built plants and factories were put in operation

under the Second Five-Year Plan the government reduced or even entirely discontinued the importation of automobiles, tractors, agricultural machinery, electrical equipment, machine tools, iron and steel, cotton, wool and paper. The foreign trade policy seeks in every way to reduce the total volume of imports. The proportion of machines and equipment imported in the period of restoration (1921-1928) amounted to an average of 21.7 per cent, and during the time of the First Five-Year Plan it rose to 50 per cent, and during the Second Five-Year Plan it again decreased to 36.7 per cent. It is interesting to note that, in spite of Stalin's solemn promise to increase consumption through the Second Five-Year Plan, the proportion of consumers' goods imported hardly rose at all during this period (11.1 per cent as against 10.2 per cent). In comparison with pre-Soviet years, the pattern of imports has undergone a radical change. While in 1909-1913 machinery and equipment comprised 19.8 per cent, metals 3.4 per cent, and foodstuffs 18 per cent of all imports, at the time of the Second Five-Year Plan (1933-1937) machinery and equipment constituted 36.7 per cent, metals 27.2 per cent, while foodstuffs were only 7.1 per cent of all imports.⁸

With the fulfillment of the economic plans, the situation has changed in that the needs for raw materials and manufactured goods are more fully satisfied by domestic production than was previously the case.

In 1913 Russia imported 43.6 per cent of its machine requirements, in 1937 it imported only $\frac{1}{10}$ of 1 per cent. In 1913 Russia imported 19.8 per cent of all the coal and coke consumed; beginning with the time of the First Five-Year Plan she entirely discontinued importation of coal. In 1913 Russia imported 46.9 per cent of her cotton needs, in 1928, 37 per cent, while from 1932 to 1938 imports of cotton greatly declined and were renewed only in 1938, to create reserves in case of war. In 1913 Russia imported all the rubber she needed; by 1937 she was importing only 23.9 per cent of her rubber consumption. Many commodities which Russia pre-

⁸ *Problems of Economics*, 1937, Nos. 3-4, and 5-6. *Izvestia*, July 21, 1938.

viously imported she now exports, such as coal, pig iron, agricultural machinery, trucks, fertilizers, cotton, furs and canned goods. Since her entry into the war with Germany, Russia has resumed importation from the United States of cotton, rubber, machinery, military supplies and equipment.

Table 20 shows the distribution of foreign trade by countries.

TABLE 20. *Foreign Trade of the U.S.S.R. by Countries of Origin and Destination**

(In million rubles)†

Countries	1913		1926-1927		1929		1932		1937		1938	
	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.
Germany	1,969	2,861	741	708	942	853	440	1,435	108	200	88	67
Great Britain	1,172	758	882	443	887	239	607	403	506	192	375	240
Holland	777	94	93	32	137	9	94	16	112	105	93	103
France	399	250	237	97	186	139	126	19	87	28	60	39
Italy	323	74	165	14	144	34	118	119	17	4	..	0.1
United States	62	346	103	639	187	776	75	139	134	244	97	406
Belgium	283	39	60	1	84	20	85	4	130	67	117	64
Spain	17	25	15	4	51	30	35	1	92	23	49	26
Iran	253	191	190	180	305	266	111	219	92	85	58	64
Latvia	..	..	251	7	342	73	43	25	6	7	7	7.5
Estonia	..	..	30	16	16	8	32	0.2	7	6	7.2	6
Lithuania	..	..	1	1	7	1	18	5	16	11	13	12
Finland	242	223	46	78	31	47	23	13	9	4	10	6
Poland	..	..	85	58	58	85	21	25	13	4	7.1	1.5
China	126	331	82	131	102	151	104	80	41	41	42	4.1
Japan	6	21	79	16	84	36	44	21	12	54	21	18
Turkey	157	81	60	47	76	44	24	25	34	29	155	22
Mongolia	12	37	20	33	44	65	181	84	66	34	60	35
Afghanistan	26	28	15	19	28	49	64	52	17	17	12	13

* Table compiled from reports in the *Bulletin of Foreign Trade*, organ of the Commissariat of Foreign Trade, 1935-1940, No. 12.

Foreign Trade of the U.S.S.R. for Twenty Years, 1918-1937, pp. 220-260, 1938.

† Equivalent of 1936 ruble.

Unfortunately more recent data showing the extent and structure of foreign trade of the U.S.S.R. has not been published. According to United States statistics,⁴ exports from the U.S.S.R. to the United States dropped 20 per cent in 1939 and increased in 1940 by 25-27 per cent over 1938; imports from the United States, on the other hand, declined in 1940 by 10 per cent in comparison with 1938.

⁴ *Trade of the United States with the USSR*, U. S. Dept. of Commerce, 1940. *Monthly Summary of Foreign Commerce*, December, 1940.

In pre-Soviet export trade Germany occupied first place. With the adoption of the NEP, England replaced Germany and has held first place all through the three five-year plans (1928-1940). After Germany and England, the countries of greatest importance in Russia's pre-Soviet export trade were Holland, France, Italy, Belgium, Iran, and Finland. The United States was eleventh on the list. Since the Revolution the importance of Holland has declined considerably while that of the United States has greatly increased. At the time of the First Five-Year Plan the United States occupied fifth place and by 1938 was fourth on the list.

In imports, at the time of the First Five-Year Plan, Germany held first place, with the United States second and England third. In 1938 the United States ranked first, England second, Holland third, and Germany fourth.

The following table shows the relative share of exports

TABLE 21. *Relative Share of Various Countries in the Foreign Trade of the U.S.S.R.**

(Percentage of total)

Countries	Export			Import		
	1909-1913	1929-1932	1938	1909-1913	1929-1932	1938
Total	100	100	100	100	100	100
England	20.5	26.5	28.2	13.2	8.0	16.9
United States	0.9	3.7	7.3	7.0	18.8	28.5
Germany	29.0	19.4	6.6	43.6	31.6	4.7
France	6.3	4.3	4.5	4.9	2.1	2.7
Holland	12.1	3.5	7.0	1.7	0.3	7.2
Belgium	4.2	2.5	8.8	0.7	0.4	4.5
Italy	4.3	4.6	0.9	..	..	..
Japan	..	1.9	0.6	..	1.1	1.3

* Sources: *Trade Relations of the U.S.S.R. with Capitalist Countries*, p. 21. Moscow: Scientific Institute of Foreign Trade Monopoly, 1938. Bulletin of Foreign Trade, 1935-1939, No. 12.

and imports of the most important countries, measured in percentage of the total imports and exports of the U.S.S.R.

Though the volume of trade was not great, the U.S.S.R. had continued trade relations with its neighboring countries, those formerly a part of Russia—Poland, Latvia, Finland, Estonia, and Lithuania—and the lands of the Near and Far East—Turkey, Mongolia, Afghanistan and China.

FOREIGN TRADE POLICY. STRIVING FOR ECONOMIC INDEPENDENCE.

STATE MONOPOLY IN FOREIGN TRADE

In its foreign trade the Soviet government has followed a definite economic policy determined by the general five-year plans. In the way of exports, as we have shown above, it sought to send out finished manufactured goods or processed raw materials instead of foodstuffs needed by the people or raw materials in a crude state of which there was an acute shortage in industry. It is clear from the figures cited that this policy has been crowned with success. Exports of grain have been reduced to a minimum, and those of meat, eggs, livestock, and poultry were gradually discontinued altogether. The necessity of increasing exports obliged the government to send out oil, lumber, and metals which were vitally necessary to the country, but in the course of the five-year plans it succeeded in confining its exports to processed or refined products.

In its export trade during the First Five-Year Plan, the Soviet government followed a system which caused great irritation in countries competing with it and came to be known as "Soviet dumping." This was caused by the fact that in those years the Soviet government could compete with other countries not by the quality, finish, assortment, or packing of its goods, but chiefly on the basis of low prices. It was impelled to do this because by the time it returned to the world market it found exporters from other countries well entrenched. In its need of foreign currency to pay for its imports the Soviet government frequently offered its wares at prices not only below those prevailing in the world markets, but sometimes even below their cost of production. As undisputed master of a closed economy, aided by the

falling value of Russian currency in the world markets, the Soviet government could practically ignore the cost of export merchandise paid for at home in rubles and base its prices for goods sold abroad merely on what it had to pay out in foreign currency: freight charges, customs duties, discounts, and so on. From the point of view of economic interest such a policy was extravagant but it was justified in the eyes of its authors by considerations of the need for rapid industrialization of the country, and assuring its national defense.

The second World War interrupted this struggle for markets. The course of this war and the tremendous problems it has raised even in the course of its development lead one to believe that after the war the problem of distribution of markets will require new, entirely different treatment.

In the field of imports the U.S.S.R. has been guided by the goal of economic independence. "We must make a sharp turn in order to free our country as completely as possible of dependence on foreign nations" was the resolution adopted by the 17th Conference of the Communist party in 1932.

The idea of economic independence is advocated in the U.S.S.R. as the "highest achievement of a country in the process of building up Socialism." Actually the striving for economic independence was merely an aspect of Soviet Russia's effort to increase her economic and military power, in view of the economic and political tension which marked the international relations in the years immediately preceding the outbreak of the second World War. In the U.S.S.R., as in other countries, economic independence had a one-sided meaning. In practice export trade was forced by means of low prices, while imports were curtailed not, of course, because "we can make everything at home" as Soviet economists maintained, but because of the need to conserve foreign currency.

Since the adoption of the five-year plans Soviet Russia has succeeded in greatly reducing the importation of many commodities. As I have shown, the U.S.S.R. has succeeded in developing the manufacture of general and precision machinery, locomotives, motors, nonferrous metallurgy and its

products, the chemical and electrical industries, etc. For example, the importation of cotton in recent years has virtually ceased and the production of synthetic rubber has been started, and so forth.

The U.S.S.R. has achieved economic independence in many respects but her own experience has shown that no country, however bountifully endowed by nature, can cut off imports from other countries without harm to its own economy. The fact that the U.S.S.R. has considerably lessened its dependence on other nations is a great blessing just now, when she has been drawn into the second World War, and from this point of view her persistent striving for a comprehensive internal development of industry has been justified.

However, a country blazing new trails in economic policy should not try to make a virtue of necessity. The rule proclaimed by Soviet economists that "countries that wish to remain politically independent must establish economic independence for themselves" is wrong. It is true that any country must make it possible for itself, in case of necessity such as a break in trade relations, war, or a blockade, to get along with substitutes of, let us say, oil or rubber. But in ordinary circumstances when trade relations between nations are normal, it is more natural for grain-producing countries to export grain and exchange it for oil and rubber, than for Iraq to begin to raise grain or for the Malay Islands to build plants for producing synthetic oil. Besides, the effort to produce "everything in one's own country" requires ever new investments of capital and more and more effort and strain on the part of the population. The production cycle, from producing the means of production to producing consumers' goods, is lengthened; the satisfaction of the needs of the population is still further postponed.

It naturally proved impossible to realize the ideal of producing everything in the U.S.S.R. "from a knitting needle to most intricate equipment." Imports were greatly reduced but not discontinued.

As soon as war broke out between Germany and England the U.S.S.R., in spite of its claim that it "has everything at home," began busily to buy up machines, wool, cotton, coal,

and nonferrous metals. After being drawn into the war with Germany, the U.S.S.R. proceeded to make full use of the favorable terms offered her by the United States for buying metals, gasoline, and armaments.

The U.S.S.R. has practiced "dumping" in her export trade and "autarchy" in her import policy not because those are the new principles of a "country building Socialism," but because of the difficulty in accumulating the necessary capital, while the need for rapid industrialization of the country was dictated by the international situation.

The monopoly of foreign trade has existed in the U.S.S.R. for more than twenty years. After the government had gained control of the foreign trade apparatus it was able to make it serve the economic policy laid down by the plan. Only through monopolistic control of foreign trade was it possible for the Soviet government to carry out so completely the main aspects of its economic policy, namely, to balance exports and imports, to determine the make-up of exports and imports, to secure the relative stability of the ruble within the country. No other system of foreign trade could have so protected Soviet industry from the competition of other countries.

Monopoly of foreign trade was a system which completely secured to the U.S.S.R. an isolated, closed economy. Neither high protective tariffs nor a system of licenses and reciprocal tariff treaties would have succeeded in putting it into a position of such complete isolation from the outside world and such complete subordination to the policies of the government, which had concentrated in its hands the country's entire economy.

The monopoly of foreign trade was a logical and natural corollary to that policy of centralized nationalization of the economy of the country which has been followed in the U.S.S.R. in recent years.

For this reason the monopoly of foreign trade suffered both in its policy and in the methods of its fulfillment from the same defects as did the rest of the nationalized economy of the U.S.S.R. Disregard of the interests of the masses of the people, bureaucratic methods of handling the goods for ex-

port, incompetence in conducting import trade, and most important, procrastination, lack of punctuality, and cumbersome operation of the whole apparatus were characteristic of the work of the Commissariat of Foreign Trade.

If the war between Germany and Russia ends in the defeat of Hitler, it would seem that the existing system of foreign trade monopoly will be bound to undergo considerable change. The experience of the war will force the reform of the bureaucratic government apparatus and will afford greater opportunities to the co-operative, economic, and cultural associations of the people. But the whole system of foreign trade monopoly, its principles, methods, and practice, will also be affected by all those broad changes which will come about in the postwar world: new government organizations, new federations of nations, new customs unions, new economic relationships, and possibly, new countries with a planned economy and monopoly of foreign trade.

After the war the foreign trade monopoly will have to adjust itself to the new situation and to new methods; it will have to solve the problem not of how to reduce trade to a minimum but how to develop the country's foreign trade to a maximum. After the war the task of Soviet economic policy will be to enter as fully and in as diversified a way as possible into the economic life of the whole world. In order to succeed in that task other methods will be needed, more subtle and flexible than those used heretofore.

ECONOMIC RELATIONS BETWEEN THE U.S.S.R. AND OTHER NATIONS

Trade relations between the U.S.S.R. and other countries have undergone great changes during the years of the Soviet regime. These changes were caused partly by different economic goals which the export-import policy of the U.S.S.R. has set itself from time to time, partly by the more or less favorable conditions that one country or another extended to the U.S.S.R., but chiefly by international political relationships.

Pre-Soviet Russia, because of her general economic backwardness, maintained constant trade relations with an extremely limited circle of nations. The main bulk of Russian

exports was directed to the biggest European markets and in those same markets she bought the merchandise she required. More than 60 per cent of all Russian imports in 1913 came from Germany and England and more than 60 per cent of all Russian exports went to Germany, England, and Holland.

Direct trade relations with transoceanic lands were insignificant. Direct exports to even so important a country as the United States amounted to less than 1 per cent of all Russian exports at the same time that a whole range of Russian products were being imported by the United States through intermediary firms in England, Germany, and Holland. Russia's prewar imports from the United States were a little greater than the exports but even they amounted in 1913 to only 5.8 per cent of all Russia's imports, not corresponding at all to the trade possibilities between two such great nations.

In the period of the five-year plans the number of countries with which the U.S.S.R. traded directly increased, but the dominant position of Germany and England remained. The relative importance of the United States in both export and import increased greatly. Export relations between Russia and lands of the Near and Far East developed.

Trade relations between Russia and England, interrupted by the October Revolution, were resumed in 1921 after a trade agreement had been concluded. Although in those years England had not formally recognized Soviet Russia, she permitted the establishment of a Trade Mission in London, and extended to Russia the rights of a most favored nation. On February 2, 1924, England recognized the Soviet government *de jure*. Trade relations which had begun to develop were broken off in 1927 by political complications. Not until 1930 was a new commercial agreement concluded, the most favored nation rights restored, the status of the Trade Mission defined, and discrimination against the U.S.S.R. in the way of credits removed.

In October, 1932, relations between the U.S.S.R. and England again began to deteriorate. In 1933 relations had become so strained that the U.S.S.R. arrested engineers of the

Vickers Company, while England placed an embargo on Soviet imports.

In 1934 relations were resumed and a new commercial agreement restored the principal clauses of the 1930 pact. In 1936 the trade agreement of 1934 was supplemented with a credit agreement by which England accorded more favorable credit terms to the U.S.S.R. and agreed to guarantee the payment of Soviet notes issued in part payment for goods purchased in England.

Russia has not played an important part in England's foreign trade. From 1909 to 1913 it took only 1.1 per cent of all England's exports and in 1938 it took 1.4 per cent.⁵ In 1913 England's imports from Russia were 1.6 per cent and in 1938 2.1 per cent of all England's imports. Russia's part in England's re-export trade is considerably greater. Thus, in 1937, 21 per cent of all merchandise re-exported from England was sent to the U.S.S.R. Since Russia was obliged to buy from England chiefly for cash, her purchases were limited to the amount of English currency gained through selling her wares to England. Under the trade agreement the U.S.S.R. had bound itself to spend part of the money realized from sales to England for the transportation of goods by English vessels, for insurance and warehouse charges. For this reason in all the years of their trade relations the value of the U.S.S.R. exports always somewhat exceeded the value of their imports. The chief export from the U.S.S.R. to England consisted of forest products (about 35 per cent), petroleum products (6-7 per cent), furs (11-13 per cent), flax, wheat, butter, and castor oil. The U.S.S.R. imported from England chiefly industrial equipment, nonferrous metals, wool, rubber, tea, jute, and naval and merchant ships. After the outbreak of the war between Germany and the British and French Allies, trade between Britain and the U.S.S.R. still continued but relations became seriously strained, both because of the pact concluded by the U.S.S.R. with Germany and because of the trade relations which the U.S.S.R. at that time developed with that country. England more than once

⁵ *Trade Relations of the U.S.S.R. with Capitalistic Countries*, pp. 21-42. Scientific Institute of Foreign Trade Monopoly, 1938.

accused the U.S.S.R. of acting as middleman for Germany, buying up cotton, rubber, nonferrous metals on the international markets—including America and England—and then reselling them to Germany. British ministers several times officially charged Russia with allowing goods to pass via Vladivostok to Germany.

The U.S.S.R. denied these charges but the negotiations to renew the commercial agreements of 1936-1941 had not been completed when war broke out between Germany and the U.S.S.R. on June 22, 1941. Immediately thereafter the political relations between England and the U.S.S.R. once more improved, and on July 12 the U.S.S.R. officially became England's ally. This was followed by the conclusion of a trade agreement on August 15 providing for the economic co-operation of the two countries.

With Germany the Soviet government concluded the first agreement in 1921 and the second—based on the most favored nation principle and providing for extension of credits—was concluded at the same time as the political treaty of Rapallo, in 1922. The trade agreement was renewed in 1925 and in 1926 Germany again extended credits of 300,000,000 marks to the U.S.S.R. In 1931 further credits for the sum of 350,000,000 marks were extended. In the first few years after Hitler's accession to power the relations between Germany and the U.S.S.R. were strained and Russian imports from Germany fell off from 649,000,000 rubles to 126,000,000 rubles in 1934. This was followed by a growth in trade between the U.S.S.R. and England, France, and the United States.

In 1934 negotiations began between the Soviet Trade Mission and the German government concerning trade relations; this resulted in an economic agreement in 1935, and the granting to the U.S.S.R. of long-term credits for 200,000,000 marks with which to pay for orders placed in Germany. In 1936 and 1937 the commercial agreements were renewed for one year. Actually during the years preceding the war (1939) the volume of trade between the Soviet and Germany was not great and dwindled from year to year. In 1939 after the negotiations between the U.S.S.R. and Britain and France

for a military alliance had broken down, the U.S.S.R. signed a pact of friendship with Germany (September 28, 1939) which in practice meant aid to Germany in the war, by supplies of food, raw materials, oil, etc. In 1940 this pact was renewed and remained in force until June 22, 1941, when Germany attacked Russia.

Germany played a leading part in both the export and the import trade of Russia. Soviet Russia sold her grain, oil (21.3 per cent of all her exports to Germany in 1936), lumber (57 per cent of all her exports to Germany in 1936), and furs. From Germany she bought the manufactured articles she needed, especially machinery and equipment of all kinds. A considerable part of the machinery and machine tools required for industrialization was acquired from Germany, which not only extended favorable credit facilities but also furnished substantial aid in the working out of technical projects.

Russian exports to Germany consisted of grain, flax, hides, oil-cake, forest products, petroleum products, manganese, asbestos, furs, and other articles. Russia's part in Germany's foreign trade in the days of the czars was not great: 11.7 per cent of all foreign trade in 1909-1913. In the Soviet period up to 1932 the U.S.S.R. took 10.9 per cent of all of Germany's exports and sold her 5.8 per cent of her imports. The corresponding figures for 1938 dropped to 0.6 per cent and 0.9 per cent, respectively.*

Trade relations between the U.S.S.R. and the United States began with the time of the First Five-Year Plan, i.e., considerably before the resumption of diplomatic relations, which did not take place until 1934. When the U.S.S.R. began to work under five-year plans, it naturally was interested in renewing trade relations with the United States. Since 1929 the United States has occupied a predominant place in the importation of machinery and equipment by the U.S.S.R., taking first rank in 1930. During the years that credit was forthcoming in Germany, after the treaty of Rapallo, imports from the United States dropped, while from

* *Ibid.*, pp. 119-143.

1935 they rose until by 1937 the United States once more occupied first place.

These fluctuations are largely explained by the unsettled state of the political relations between the two countries, and the refusal of the United States to extend credit to the U.S.S.R. No trade agreement was concluded until 1935 when trade between the two countries began to grow rapidly. During the First Five-Year Plan the U.S.S.R. imported machinery and equipment chiefly for agriculture—tractors, combines, etc. It also bought large quantities of cotton for its industries. Since the time of the Second Five-Year Plan the U.S.S.R. has imported from the United States chiefly iron and steel and nonferrous metals, electrical equipment, machinery, machine tools, apparatus, sole leather, etc. The United States buys from the U.S.S.R. chiefly furs, coal, manganese ore, lumber-mill products, medicinal raw materials, fish, caviar, peasant handiwork, linen fabrics.

Besides importing commodities from the United States the Soviet government, during the five-year plans, made various agreements regarding technical aid, e.g., in the drawing up of plans and projects for the building of new plants, machines, estimates for new construction, directing intricate construction, and research.

The treaty of 1937 between the U.S.S.R. and the United States provided for mutual most favored nation treatment. In 1938 and 1939 the agreement was renewed for a year. On the basis of these agreements the government of the United States extended to the U.S.S.R. all the tariff reductions accorded to other nations under the tariff act of 1934 and later agreements.

In 1940, after Russia signed the pact with Germany, relations between the U.S.S.R. and the United States changed for the worse. U.S.S.R.'s war against Finland had caused the United States to declare a "moral embargo" against her. The government of the United States also refused to recognize the annexation of Lithuania, Estonia and Latvia, Poland and Bessarabia. The government of the United States more than once pointed out to the U.S.S.R. that the greatly increased purchases of cotton and nonferrous metals aroused a sus-

picion as to their destination. As a consequence, the United States did not conclude a new agreement with the U.S.S.R. until June, 1941. Trade relations during those years were based on the old agreement prolonged from time to time.

Russia's part in the foreign commerce of the United States had always been insignificant; it never exceeded 2 per cent. In 1938 Soviet Russia took 2.3 per cent of all the United States exports, and imports from the U.S.S.R. represented 1.2 per cent of all United States imports in that year.⁷

Since the war, declared by Germany against the U.S.S.R. on June 22, 1941, the United States has accorded favorable terms to Soviet Russia for the purchase of military equipment and ammunition, while the U.S.S.R. has resumed the export to the United States of manganese ore, furs, medicinal raw materials, etc. On August 2, 1941, a renewal of the trade agreement for one year between the United States and the U.S.S.R. was signed, extending priority in the delivery of war materials and gasoline to the U.S.S.R. and the removal of all previous limitations on exports to that country.

Trade relations with France, after the Revolution of 1917 and the break in diplomatic relations, were not resumed until 1921, and at first were carried on through the union of co-operative organizations, known under the Russian name of "Centrosoyuz." In 1924, after the formal recognition of the U.S.S.R. by France, trade was carried on through the Soviet Trade Mission in France. In spite of recognition, until 1934, when a commercial treaty was signed, trade was continually interrupted by disputes relating to commercial and financial matters, the latter involving the question of Russia's old, pre-Revolutionary debts to France. In 1930 France introduced the system of licensing a number of commodities imported from the U.S.S.R.: lumber, grain, flax, and sugar. After retaliatory measures on the part of the U.S.S.R., France revoked the restrictive measures in 1931. There were also serious disputes over the question of the rights of the trade missions and export and import associations.

Soviet export to France has undergone considerable changes in its composition. In prewar years (before 1914)

⁷ *Ibid.*, pp. 43-59.

Russia sent chiefly agricultural products to France. In recent years the U.S.S.R. has exported petroleum products, coal, flax, forest products, and furs. In 1935-1939, Russia imported from France chiefly iron and steel, pipes, paints, chemicals, machinery and machine tools.

France's refusal to grant the U.S.S.R. long-term credits was responsible for the failure of her trade with Soviet Russia to grow; in 1938 Russia took only 0.6 per cent of France's exports and sold her 1.3 per cent of her imports. This ratio had not changed since the years previous to 1914.⁸

Trade relations between Russia and Japan began long ago but did not develop to any great extent. In 1913, Russo-Japanese trade comprised only 0.3 per cent of Russia's total foreign trade and 0.7 per cent of all Japan's foreign trade. Russian exports to Japan continually decreased, while imports from Japan increased particularly in the years preceding the war in 1914. The chief items of Russian export were oil-cakes, beans, lumber, furs and hides. Russia imported from Japan raw silk, fruits, fish nets, textiles, and machinery. At the time of the first World War the imports from Japan increased considerably. Trade relations, broken off at the time when Japan took part in the intervention against the Soviet government, were not resumed until 1925 when a treaty was signed restoring normal diplomatic and trade relations. The treaty, signed in Peking, in addition to a trade agreement based on the most favored nation principle, provided for an agreement to be concluded regarding Japan's fishing rights in Russian waters in the Far East and the granting of rights to Japanese companies to secure oil and coal concessions in the Russian half of Sakhalin. The time of the most favorable trade relations between Japan and the U.S.S.R. was the period from 1925 to 1931. The volume of trade increased 2½ fold during that period. The U.S.S.R.'s exports to Japan during those years were approximately 12 to 13 times greater than in 1913 and consisted largely of forest, fish, and petroleum products. On the other hand, the U.S.S.R. began at that time to import from Japan machinery

⁸ *Ibid.*, pp. 62-74.

equipment which it previously had purchased in European markets.

After the annexation by Japan of Manchukuo and the northern provinces of China, relations between the two countries grew much worse, which was immediately reflected in the volume of their reciprocal trade. In 1935, after the conclusion of an agreement providing for the cession of the Chinese Western Railroad to Japan, and for the delivery of a number of products by Japan to the U.S.S.R. in payment for the cession, trade revived somewhat. In August, 1938, there were serious border clashes in the region of Lake Khasan, which did not develop into a war only because of the restraint exercised by both sides at the time. However, this clash had an unfavorable reaction on trade relations.

After the conclusion of the pact between the U.S.S.R. and Germany, trade relations between Russia and Japan improved greatly. The U.S.S.R. became the country in which all the transactions between Germany and Japan took place and, in general, the country of transit for all Japan's exports and imports from Europe.

In 1941, after Foreign Minister Matsuoka's visit to the U.S.S.R., a "treaty of friendship" was concluded between the two countries, accompanied by a new trade agreement and the renewal of the agreement on fisheries and concessions in Sakhalin. On June 12, 1941, a five-year agreement was concluded containing the most favored nation clause. Japan undertook to supply foodstuffs, machinery, and silk; the U.S.S.R., nonferrous metals, manganese and wool. So far, Germany's entrance into the war against the U.S.S.R. on June 22, 1941, has had no unfavorable reaction on the trade relations between the U.S.S.R. and Japan.

In normal times trade relations with the U.S.S.R. have not been of much importance to Japan and have centered largely on the question of fishing rights in Far East Russian waters, which are of decisive importance to her. In 1938 the U.S.S.R. took 0.7 per cent of Japan's exports and sold her 0.3 per cent of her imports.⁹

Trade relations between the U.S.S.R. and the countries of

⁹ *Ibid.*, pp. 319-344.

the East—Turkey, Iran, Afghanistan, Western China, and Mongolia—developed on a somewhat different basis from those of countries we have so far examined. Russia has had a policy of giving preferential treatment and friendly protection to these countries. She bought up a considerable part of their raw materials, cotton, hides, wool, sausage casings, livestock, etc., for processing by her own industries. On the other hand, she supplied the needs of these countries for cloth, sugar, metal products, dry goods, clothing, shoes.

Bordering directly on these countries, knowing their needs and extending them credit, the U.S.S.R. has played an important part in their trade. She has not only sold them the necessary machinery and finished manufactured goods, but has given them technical aid and aid in construction. The U.S.S.R. undertook and carried out the task of building plants for the textile syndicate in Turkey, the leather, shoe, and textile trust in Mongolia and Tuna-Tuva, cotton gins in Iran, and so on. In 1938 the total volume of trade between the U.S.S.R. and Turkey amounted to 40 million rubles, with Iran to 154.5 million rubles, and with Mongolia 82.4 million rubles, considerably less than Russia's trade with these countries in pre-Soviet times.¹⁰ In volume the trade with these countries has not been large but it has been of great political importance to the U.S.S.R., which through all these years has been at great pains to develop it.

¹⁰ E. Ginsburg, *Vneshnaya Torgovlia SSSR (Foreign Trade of the U.S.S.R.)*, pp. 136-142. Soccecgiz, 1937.

CHAPTER SIX

FINANCE

FINANCIAL ASPECTS OF THE FIVE-YEAR PLAN

ONLY after the restoration of a firm monetary unit in the U.S.S.R., that is to say, after the money reform of 1924-1925, did it become possible to formulate any definite financial plans and a government budget. From that time on the annual budgets begin to reflect a distinct improvement in the technique of their preparation. In the first few years there was little differentiation between the budgets of the federal government, the constituent republics (roughly corresponding to the states in the United States), and local authorities, but gradually the three budgets took on a distinct form. The national budget of the U.S.S.R. is a consolidated budget of all three. The annual budgets are approved by the Supreme Council (Supreme Soviet).

The relationship between the federal, state, and local budgets still remains in part unregulated, some items being carried in the federal budget one year and in the local the next. The same is true of certain items of income, which are apportioned in different ratios between the different budgets from year to year. All of which makes it difficult to compare the budgets for different years.

Still less clear are the relationships between the financial plans for any given year under the five-year plan and the budget for that year. Both are approved annually, in some years at the same time; yet these two most important acts which determine the financial functioning of the planned economy of the country frequently differ from or duplicate each other.

In the U.S.S.R. the budget could serve as the financial part of the plan for each year. Yet, not one of the three five-year plans had ventured such a bold break with established relationships and the plans continue to have financial divisions, which include budgetary items, while the budget is worked out and approved annually independently of the financial part of the five-year plan. This circumstance complicates the analysis of the financial system of the U.S.S.R.

Essentially, the line of demarcation between the two is as follows: the financial plan determines the methods of accumulation of government funds necessary for the realization of approved plans, while the budget provides for the raising and distribution of funds which the government manages directly. For example, the budget determines what sums are to be collected from or appropriated for industries or kol-khozes, but the budget does not provide how these sums are to be expended within a given trust or kolkhoz. On the other hand, the financial plan aims at covering all the financial operation within those organizations.

The lines of demarcation between the financial plan and the budget are indefinite. As already stated, they keep changing in many respects, budget and financial plan covering the same functions. This lack of clear demarcation deprives the financial system of unity and completeness. During the First Five-Year Plan, 120.1 billion rubles were expended for the financing of the production plan, for new construction, for cultural and educational purposes, for defense, and for government administration. Seventy per cent of this sum was covered by the budget. Through the Second Five-Year Plan the sum expended was 474 billion rubles of which 76.8 per cent was covered by the budget. For the first three years of the Third Five-Year Plan the sum expended was 170 billion rubles, of which 82 per cent was covered by the budget.¹

As will be seen from these figures, the budget is covering a steadily increasing proportion of the expenditures under

¹ Computed from data contained in budget reports for 1938, 1939, 1940, 1941, submitted by A. G. Zverev, Commissar of Finance of the U.S.S.R., and Professor N. Rovinsky, *The National Budget of the U.S.S.R.*, p. 4. *Gosfintzdat*, 1939.

the plan. The budgetary system appears as the most important lever of accumulation and distribution of government resources for financing the national economy in all its branches, as well as for defense, administration, and the cultural life of the country.

In view of the fact that the structure of the Soviet economy and the relations between the state and the population differ so radically from those of other countries, the budget system of the U.S.S.R. is also quite different and therefore not automatically comparable with the budgets of Germany, England, or the United States.

THE NATIONAL BUDGET AND METHODS OF CAPITAL ACCUMULATION BY THE STATE

The budget plays a much more decisive part in the economy of the U.S.S.R. than in other countries. The national budget mobilizes and redistributes all the financial means placed at the disposal of the national government, and since the government in the U.S.S.R. has a monopolistic control of the entire economy, cultural life, defense and administration of the country, the national budget is, in effect, the central accumulator and distributor of the national income. In lands where the economy of the country is under private ownership, the national budget mobilizes only a part of the national income, while a considerable part of that income which originates in private enterprises is accumulated in stock companies, banks, insurance companies, or by private persons. The application of the accumulations is, in private economy, directed by the will of their owners to various production or consumption purposes. In the U.S.S.R. the government determines through the budget system what part of these accumulations shall be used for purposes of national production, and what part for national consumption, according to plan. As pointed out in preceding chapters, since the adoption of the five-year-plan system, the U.S.S.R. has followed a policy of forced industrialization and the share of the national income used for expanded production is exceptionally large. It is impossible to estimate what part of the national income is used for long-term investment, be-

cause the national income of the U.S.S.R. is estimated in terms of 1926-1927 prices, while the budget and capital investment are expressed in prices of the current year, and there is no index number for the conversion of these figures into 1926-1927 rubles.

However, in order to give some idea of the volume of appropriations for the purposes of expanded production, the following estimates made by Professor Notkin, one of the contributors to the magazine called *Problems of Economics* published by the Academy of Science, will be cited. Professor Notkin estimates that "the accumulation in 1937 was equal to 26.4 per cent while in 1942 the plan calls for 28.8 per cent of the national income."² How large this share is can be understood if we bear in mind that in the United States in 1922-1932 the average annual accumulation fund was equal to 9 per cent of the national income while 91 per cent was used for purposes of consumption. Even if one makes allowances for the inaccuracy of Professor Notkin's estimate, it is still clear that the part of the national income

TABLE 22. *National Budget Receipts*
(In billions of rubles)*

Sources of Receipts	1928-29		1933		1938		1940 (prel. report)		1941 (draft)	
	Bil. R.	Per Cent	Bil. R.	Per Cent	Bil. R.	Per Cent	Bil. R.	Per Cent	Bil. R.	Per Cent
Total Receipts	8.1	100.0	44.2	100.0	127.5	100.0	178.1	100.0	216.8	100.0
Turnover tax	3.1	38.3	27.0	61.1	80.4	63.1	105.8	59.4	124.5	63.2
Profit tax	0.6	0.7	4.2	9.5	10.6	8.3	21.3	12.0	31.3	14.5
Social insurance tax†	..	..	0.5	1.1	3.7	2.9	9.2	5.2	10.0	4.6
Income of the MTS‡	..	..	..	..	..	..	2.0	1.1	2.6	1.2
Direct and indirect taxes on individ- uals	1.0	12.0	2.8	6.4	5.0	4.0	9.4	5.3	12.5	5.7
Public loans	0.3	0.4	3.2	7.2	5.1	4.0	11.4	6.4	13.2	6.1

* *The First Five-Year Plan*, 1929.

The Second Five-Year Plan, 1939, pp. 13-15.

Budget Reports of Commissar of Finance, Zverev, 1938-1941.

† Social insurance is covered fully under the budget only since 1938.

‡ Machine Tractor Stations.

² *Problems of Economics*, 1940, Nos. 10, 11, and 12, p. 67.

used in the U.S.S.R. for purposes other than direct consumption is great. The income of the national, state, and local governments under the budget of the U.S.S.R. is derived from the main sources shown in Table 22.

The rate at which the national budget is growing from year to year is great. If the figure for 1928-1929, the first year under the First Five-Year Plan, is to be 100, the budget for 1933, the first year under the Second Five-Year Plan, equals 545.6, and the budget for 1938, the first year under the Third Five-Year Plan, is 1,574, while the budget for 1941 is 2,676.

A number of factors have determined the growth in the size of the budget. The change in the value of the ruble has played some part, although not an important one, since the fluctuations of the ruble, after the monetary reforms of 1924, have not been great and have become still less since the adoption of five-year plans. Two facts have been significant: first, that the budget is covering more and more fields of the national economy and of the everyday life of the people from year to year; second, that the national income has greatly increased as a result of industrialization and collectivization. If we compare three sets of figures which reflect the rate of increase of the national income, retail sales, and the national budget, taking the first year of the First Five-Year Plan as a base, we will see that the rate of increase of the budget is greater than those of the national income and retail sales.³ (See Table 23.)

The proceeds of national economy constitute the chief source of government income. They consist of two items: a tax on profits and a turnover tax. In 1929 the income from these two items constituted 45.7 per cent of the total national budget receipts; in 1933, 70.6 per cent; in 1938, 71.4 per cent; and in 1941, 77.1 per cent.

In the first few years of planned economy a heated controversy took place among Soviet economists over the best methods of raising government income. One group called

³ The remark previously made as to the limitations of these estimates owing to the fact that the national income is established in 1926-1927 rubles, while retail sales and the government budget are in current rubles, applies to the figures in Table 22.

TABLE 23. *Rates of Growth of the National Income, Retail Sales, and National Budget**

	1929	1933	1938	1940
National Income	100	167.8	363.3	602
Retail Sales	100	403.3	1,072.4	1,077
National Budget	100	545.6	1,574.0	2,200

* Computed from data contained in budget reports of the Commissariat of Finance by Grinko and Zverev.

Socialist Building of the U.S.S.R., 1933-1938, pp. 18, 110, 111, 1939.

for the liquidation of the numerous taxes and excise duties (of which there were 86 in 1929-1930) and advocated as a substitute the adoption of one general tax to be raised at different rates from different population groups. Another group likewise advocated a single source of income but believed that it should be derived not from taxes but from the national economy. "Why use the clumsy, expensive, bothersome, and unreliable tax apparatus when it is simpler and more advantageous to fix prices on all commodities and services so that they will yield an income to the government in such volume as it needs for the performance of all its functions."⁴

The retreat from old concepts took place gradually. Until the end of 1929 the Soviet government hesitated to resort to indirect taxation on a large scale. However, the need for immense funds for the carrying out of the First Five-Year Plan, coupled with the impossibility of raising it from the peasants either by taxation in kind or by direct taxes, prompted the government to cross the Rubicon. On December 5, 1929, the Central Committee of the Communist party resolved: "To instruct the People's Commissariat of Finance and the Supreme Council of National Economy to draw up a system of taxation of government enterprises on the principle of a single tax on profits." In further elaboration of this

⁴ *Finances and Credit*, organ of the People's Commissariat of Finance, 1926.

resolution the statement is made that all government income derived from the nationally owned sector of industry must be reduced to two items: (1) "a turnover tax which is a markup on the cost of production" and (2) "a tax on the profits of the enterprise."⁵

The advocates of revenue derived from "price mechanism" carried the day, but it was decided to apply this principle through the two items just mentioned. The Soviet government was aware of the fact that government undertakings were not functioning well as yet and that most of them were operating at a loss. Therefore it based the government revenue on the turnover and only to a minor extent on the profits. The reasoning of the leaders of Soviet finance was set forth as follows:

In the turnover tax the budget has a source of revenue which does not depend directly on the results of each individual undertaking, nor on its profits; it acts directly as a source of revenue. . . . The revenue derived from government undertakings is distributed for purposes of expanding production among the different industries and undertakings, according to plan. . . . In addition to this method of accumulating government revenue and redistributing it, there is another channel for deriving funds from industry, namely, the profit tax, which varies for different industries in accordance with a number of considerations.⁶

The government decided to apply the "price mechanism" in two directions. The turnover tax was to be levied without regard to the profitableness of the undertaking, whether its cost of production was high or low. The profit tax was based on the profits of the enterprise, a part of the profits being deliberately left to the enterprise so as to create an incentive for cost reduction and for profit increase.

The turnover tax is based on the following considerations:⁷ the government, as the undisputed master over all production and consumption in the U.S.S.R., determines the prices

⁵ *Pravda*, December 6, 1929.

⁶ *Finances of the U.S.S.R.*, p. 19. A collection of essays edited by V. Dyachenko, 1935.

⁷ Yanbukhtin, *Taxes under Capitalism and in the Soviet Economy*, pp. 59, 60, 68, 1935.

on all commodities, which are firm for some and fluctuate according to market conditions for others. These prices are fixed in such a manner as to cover the basic cost which includes the cost of production, the profit of the producing and trading institutions, and sometimes an additional special excise tax; last, but not least, they include the "markup" (i.e., the turnover tax) which goes into the government treasury. This tax is paid by government institutions which produce and sell a given commodity, in the form of a fixed percentage on the turnover. This tax is imposed once, either on the producing or on the wholesale selling organization, so that in its further movement along commercial channels the commodity is not subjected to any further turnover taxes.

The turnover tax is levied on all important products, above all on articles of first necessity. The taxes are in the form of a percentage on the selling price, in which they are included. Table 24 gives an idea of the kind of articles taxed and of the tax rates during the years 1933-1937. It contains a list of only the most important commodities from official sources. The prices on all these commodities are fixed and can be changed only by the government. Agricultural products when sold in the market by members of the kolkhoz or by individual peasants are not subject to the tax.

Machinery, rails, instruments, cement, bricks, glass, perfumery, drugs, and other items are likewise subjected to turnover taxes ranging from 1 to 20 per cent. Since the turnover tax is not added to the existing selling price but is included in advance in the final selling price, the effect is to raise the basic cost two-, three- or fivefold and sometimes even tenfold. For instance, a turnover tax of 20 per cent results in a basic cost rise of 25 per cent; a 50 per cent tax raises the basic cost 100 per cent; a 75 per cent tax raises the basic cost 300 per cent, a 90 per cent tax results in a tenfold increase in basic cost.

This means in actual practice that a Soviet citizen buying a kilogram of bread at a fixed price of 85 kopecks pays $21\frac{1}{4}$ kopecks for the production of the bread, the cost of wholesale and retail distribution, transportation and delivery, and

TABLE 24. *Turnover Tax on Articles of Mass Consumption**

Most Important Commodities	Tax Rate Per Cent of Selling Price
Wheat and Rye	75-76
Meat	63-69
Butter and Eggs	70-75
Dairy Products	50-62
Sugar	84-87
Vegetable Oils	70-75
Cheese	75-86
Herring	55-66
Canned Foods	72-81
Salt	82.9
Tea	86
Coffee	86
Potatoes, Vegetables, Mush- rooms, Tomatoes	30
Textiles, Knit Goods	74.2
Boots and Shoes	70-86
Rubber Overshoes	86
Soap	62.3
Kerosene	67
Matches	69.8
Alcohol	90
Tobacco	80

* *Bulletin of Economic and Financial Legislation* (In Russian), 1934, No. 25, and 1935, No. 6.

for the services of all intermediaries while 63% kopecks goes to the government as a turnover or sales tax.

It means that in buying a kilogram of sugar at 4.2 rubles the part which goes to pay for production and distribution equals less than two-thirds of a ruble (63 kopecks) while the government receives 3.77 rubles as a turnover tax. Thus the tax results in a fourfold increase of the basic cost of bread and a 6% fold increase in the basic cost of sugar.

The turnover tax yields enormous sums to the government budget, from 60 to 63 per cent of the entire revenue. It constitutes the largest part of the value of the country's turn-

over: in 1940 it constituted 60.7 per cent of the country's merchandise turnover; in 1941 it is expected, under the plan, to cover 63.2 per cent of the entire value of retail trade of the U.S.S.R. This fact must be taken into account in estimating the movement of trade in the country and its real value. The real growth of the consumption of the country is, for reasons just pointed out, distorted in the figures of the growth of the volume of retail trade.

Most of the revenue is derived from the sale of articles of first necessity. The sale of grain and bread yielded a tax revenue of 24 billion rubles in 1935, 22 billion in 1936, and 35 billion in 1940. The turnover tax on sugar yielded 5.9 billion in 1936, forty times the revenue derived from the tax in 1913. Out of 108.3 billion rubles of revenue derived from the turnover tax in 1940, 73.8 billion rubles came from food products; 13.3 billion from textile products; 7 billion from petroleum products, while the remaining 13.7 billion came from the turnover tax on all other commodities.⁸

While it has the enormous advantages of simplicity, cheapness, and the automatic method of collection, the turnover tax is highly antisocial. With the government in monopolistic possession of the economy of the country, the idea of extracting from the population the means of recovering government expenses and of accumulating capital by means of a sales tax on commodities could be acceptable if the government selected the objects of the tax with care and skill, and established the rate and the gradation of the tax from a proper social viewpoint, making them depend on the character of the commodity and whether it constituted an article of prime necessity. Instead, the Soviet tax manifestly has for its object the raising of the largest possible sums of money without regard to considerations of a social character. The selection of the objects of taxation, the tax rates, their automatic nature, which provides for no exempted minimum or payment in installments, impart to this tax all the objectionable features of indirect taxation.

⁸ Computed from data contained in *Reference Book on Indirect Taxation*, published by Ministry of Finance, 1914, and *Bulletin of Economic and Finance Legislation*, 1935, Nos. 34, 35; 1936, No. 30, and *Bulletin of the Economic Bureau*, Professor S. N. Prokopovich, Prague, 1937, No. 133.

When the consumer, no matter how small his income, buys sugar or bread he pays exactly the same tax as his more well-to-do neighbor. Moreover, sometimes in their desire to raise a maximum of revenue, the Soviet financial experts go to the extent of adopting measures that are manifestly antisocial; for instance, the tax rate on the sale of textile manufactures in 1939 was so formulated that the cheaper fabrics paid a higher rate than the more expensive ones: the tax on calico was fixed at 48 per cent, while the tax rates on silk fabrics varied from 21 to 37 per cent, and on woolen goods 13 per cent.⁹

These tax rates could be justified at a time when the whole U.S.S.R. represented an approximately common social level, but now, when there are sharp differences in the income of various groups of the population, when some people earn from seven to twenty times as much as others, the automatic character of the turnover tax constitutes its worst feature.

This ruthless use of indirect taxation is to be explained by the desire of the Soviet government to bring about the industrialization of the country, and to increase its power of defense in the shortest possible time.

In actual practice the application of the turnover tax has other objectionable features which are not necessarily inherent in the nature of a turnover tax. The government is insisting that its producing organizations should strive to reduce the cost of production; year after year the plans provide for the reduction of production costs from 3 to 8 per cent. As industrialization is realized, some reduction, of course, is achieved, although not to the extent called for by the plans. However, the people do not feel this reduction in production costs. In full control of the "price mechanism," the government does not always pass the cost reduction on to the selling price, and when it does so it never passes on the full amount. The difference between the selling price and the cost constitutes the profit of the government, partly in the form of the profit of the producing enterprise, and the

⁹ Decrees and Regulations of the Government of the U.S.S.R., May 17, 1939.

rest in the form of fiscal income realized through the same "price mechanism."

As we can see from Table 22 the profit tax constitutes the second largest source of revenue which has grown from 600 million rubles at the beginning of the first Five-Year Plan period, to 31.3 billion rubles at present. It constitutes nearly 14 per cent of all the revenues in the budget of 1941. According to the report of the Commissar of Finance Zverev, "the plan for 1941 calls for a reduction of 2.8 per cent in cost of production, which will yield 4.7 billion rubles in additional accumulations and assures the collection of the expected profit tax under the budget."¹⁰ Taking into account Molotov's statement that each 1 per cent of cost reduction in industry results in a saving of 2 billion rubles, the 2.8 per cent cost reduction should yield a saving of 5.6 billion rubles. Of this amount, according to Zverev's plan, only 1.6 billion rubles will be passed on in the form of lower prices, while 4 billion rubles will go into the government treasury.

The greatest profit tax in the Second Five-Year Plan—15 billion rubles—was derived from the food industry; 14 billion rubles from railway transportation; 8.2 billion rubles from municipal undertakings and housing; 6.8 billion rubles from the light industries; while the combined heavy industries yielded only 5.9 billion rubles.

Public loans play a relatively important part in the budget. Since 1927 loans are issued annually. With the exception of a relatively small gold ruble loan floated in the United States, all U.S.S.R. loans are internal. Because of its strained relations with creditor nations, the U.S.S.R. has been unable during the nearly quarter century of its existence to place a single large, long-term foreign loan. The only credit enjoyed by the Soviet government abroad has been short-term credit on goods purchased or on short-term notes issued in part payment on purchases in relatively small amounts. The financing of the industrialization program had to be done through taxes and internal loans.

In 1927 the first internal loan was issued for 200 million rubles; in 1929 for 829 million rubles, in 1932 for 2,718 mil-

¹⁰ Budget report of Commissar of Finance Zverev, February 26, 1941.

lion rubles, in 1937 for 4,932 million, in 1938 for 5,928 million rubles, in 1939 for 7,637 million rubles, in 1940 for 9,433 million rubles, in 1941 for 11,200 million rubles.¹¹ The loans are allotted to various government enterprises which must set aside a definite share of their profits to take up their quota of the government loan. Savings banks are required to carry a part of their deposits in government bonds. The loans are placed among the people at large, who are supposed, ostensibly, to subscribe to them voluntarily; actually, the loans are distributed through industrial undertakings and the kolkhozes on a semiobligatory basis, such as the deduction of a definite percentage of the weekly pay to cover a workman's subscription to the loan, or the passing of a resolution at a meeting of the employees, the resolution usually being submitted by a representative of the Communist party. In 1940, 60 million persons subscribed to 9.4 billion rubles in addition to the subscriptions by government undertakings which are officially obligatory. Of the 9.4 billion rubles subscribed for, only 1.6 billion (about 17 per cent) came from kolkhoz subscriptions. Official data for the years of the Second Five-Year Plan show that only 3.5 per cent of the loans are subscribed for by the peasantry who are subject to less "moral pressure" from the authorities. The control exercised by the government over the bondholders goes to the extent of forbidding them to keep the bonds in their own possession; instead they are required to keep them in savings banks and are not allowed to sell them without the consent of the Treasury. As an inducement to subscription to loans, the bonds not only pay interest but have some lottery features. The amount of money paid out in interest and lottery winnings from 1929 to 1940 was over 70 billion rubles of which 550 million was paid in 1939, and 900 million in 1940. In 1928 the internal public debt was equal to 1.3 billion rubles; in 1932, 7.2 billion; in 1937, 26.2 billion; in 1941, 46.9 billion.¹²

One of the sources of budgetary revenue is premiums re-

¹¹ F. Urupin, Acting Commissar of Finance of the U.S.S.R., *Pravda*, May 28, 1941.

¹² P. Zyrev, *Moscow Bolshevik*, 1941.

ceived for government insurance. There are two forms of government insurance in the U.S.S.R. The first is obligatory insurance against fire, accidents, and natural calamities. The other is voluntary: life, old-age, endowment, and other forms. The voluntary insurance, according to official data, shows the greater growth; the expected growth of voluntary insurance for 1941 is 31 per cent. Part of its income the government insurance office sets aside as a contribution to the budget not only of the federal government but also of the constituent republics, regions, and other local budgets.

The taxes on individuals play an unimportant part in the budget; they yield less than government loans and not quite as much as the contributions from government insurance. In 1929 these taxes yielded a revenue of about 1 billion rubles, in 1941 the revenue was 9.1 billion rubles. In the early years of the Soviet regime there were numerous kinds of taxes, such as industrial, income, excess profit, tax on rents, tax on agriculture, a variety of individual taxes, excise taxes, customs duties. Taxes were usually levied by the federal government, but the constituent republics and local, urban, and rural soviets, likewise, had a right to levy taxes. Since the introduction of the turnover tax, the number of other indirect taxes has been reduced. At present there are only two direct taxes of any magnitude: the income tax, which is paid chiefly by the urban population, and the agricultural tax, which was greatly modified in 1941, being made payable in money depending on the profits made by the kolkhoz, its members, or the individual farmer. An insignificant part is played by the inheritance tax or the "cultural tax," the latter for the purpose of providing local revenue for cultural purposes. In addition there are local taxes, assessments and fees, such as the building tax, tax on vehicles, on cattle, land rent, license tax on dogs, tax on woods, market license fee. Notwithstanding the existence of the turnover tax, the government still maintains other indirect taxes chiefly on articles of prime necessity, such as textiles, sugar, tea, kerosene, matches.

Wages of workmen and salaries of office employees are subject to a progressive income tax. Incomes not exceeding

150 rubles per month are tax exempt; monthly incomes of 151 rubles pay 0.8 per cent; incomes of 300 rubles pay 3 per cent; above 600 there was a uniform tax up to 1940, but since that year a new classification of incomes and rates was promulgated as follows: workers and office employees earning up to 700 rubles a month, 3.4 per cent; from 700 to 1,000 rubles, 4.2 per cent; those exceeding 1,000 rubles monthly, 7 per cent; artists, actors, and writers earning up to 20,000 rubles per year pay the same rate as workers, but those earning more are subject to a special scale of progressive taxes, which are less than those applicable to persons who do not earn their living through personal efforts; thus annual incomes of 20,000 rubles pay a tax of 8 per cent, incomes of 50,000 pay 12 per cent, incomes of 100,000 pay 25 per cent, and 300,000 and above pay 50 per cent.

Artisans and home workers pay a surtax of 10 per cent

TABLE 25. *National Budget Expenditures**

(In billion rubles)

	1928-29		1933		1938		1940		1941	
	Bil. R.	Per Cent	Bil. R.	Per Cent	Bil. R.	Per Cent	Bil. R.	Per Cent	Bil. R.	Per Cent
Total expenditures	8.0	100	39.8	160	124.0	100	173.3	100	215.4	100
National economy	4.1	51.2	25.1	60.8	51.7	41.7	57.1	33.0	72.9	33.8
Industry	1.3	16.5	13.7	34.3	20.8	16.9	27.8	16.0	39.2	18.2
Agriculture	0.7	8.7	4.1	10.4	11.6	9.3	12.2	7.0	13.5	6.2
Transportation and communications	1.4	17.5	2.1	5.3	7.0	5.6	4.7	2.7	6.6	3.0
Municipal undertaking and housing	0.5	6.4	1.0	2.5	3.1	2.5	2.0	1.1	x	x
Commerce and trade	0.3	2.8	3.8	9.5	3.1	2.5	3.5	2.0	x	x
Cultural institutions	1.5	18.8	6.1	15.3	35.3	28.5	41.1	24.1	47.8	22.2
National defense	1.6	2.0	3.5	8.9	23.2	18.7	56.1	32.4	70.9	32.9
Interior Administration and Judiciary					4.3	3.5				
Service of the debt					5.3	4.3				
Reserve funds	0.3	2.8	1.1	2.6	2.0	1.6	2.8	1.6	3.3	1.6
Other expenses	x	x	x	x	1.2	1.0	5.0	2.9	x	x
	x	x	x	x	1.0	0.8	1.0	0.6	x	x

* Table compiled from following sources:

First Five-Year Plan (published 1933), pp. 63-64; Second Five-Year Plan (published 1939), pp. 404-405.

Budget Reports of Commissar of Finance Zverev, *Pravda*, February 26, 1941.

x—data not available.

above that applicable to workmen. Peasants, in addition to their payments in kind, pay the following money income taxes: members of kolkhozes pay about 10 per cent and independent peasants pay from 15 to 20 per cent, without enjoying tax exemption for any part of their income. In July, 1941, after the outbreak of the war, by a special decree the income tax was increased 50 per cent for the lower incomes and 100 per cent for the higher incomes.

During the years covered by the five-year plans the expense side of the national budget has grown as much as the revenue side. (See Table 25.)

The largest item of budget expense is the financing of the national economy. It reached its maximum ratio in 1933 when it constituted 60.8 per cent of the entire budget. In 1938 this item, although it doubled absolutely, constituted only 41.7 per cent of the total budget, and in 1940 it dropped to 33 per cent.

The largest item of expense for national economy was that of capital expenditures. In the early years of the five-year plans almost the entire capital outlay came out of the budget; gradually, however, as the industrial or commercial organizations accumulated their own funds from amortization charges and from that share of their income which is allowed to remain at the disposal of the manufacturing and commercial undertakings, the share of appropriations for repair and capital expense, which is set aside by those organizations themselves, has been continually growing and is not included in the budget. The total appropriation for capital expense in the period of the First Five-Year Plan was 51 billion rubles, in the Second it was 115 billion rubles, and for the Third it is expected to reach 181 billion rubles, having actually reached for the four years of that period, 1938-1941, over 158 billion rubles. By 1939 these organizations had financed 26 per cent of all their capital outlays; in 1940, 32.5 per cent.

The reduction during the last few years of the share of the budget for national economy was accompanied by an increase in cultural expenditures and those for national defense.

Cultural expenditures which include expenditures for education, health, and social relief, amounted to 6.1 billion rubles in 1933, or 15.3 per cent of the entire budget, and to 35.3 billion rubles in 1938, or 28.5 per cent of the budget, while in 1940 they rose to 41.7 billion rubles, or 24 per cent of the budget expenditures, and in 1941 to 47.8 billion rubles, or 22.2 per cent of the budget. This substantial increase of the outlay for cultural purposes is one of the outstanding achievements of the Soviet government. In the ten years covered by the first two five-year plans, 86 billion rubles were spent for this purpose under the federal, state, and local budgets.

About half of these expenditures goes to education (26.6 billion rubles in 1941); one-fifth to health service (10.9 billion rubles in 1941); the balance is devoted to social insurance, physical culture, and so on. Since 1940 the Soviet government has been appropriating over 1 billion rubles per annum for state help to mothers of several children. Expenditures for cultural purposes were covered to the extent of 31.5 per cent out of the federal budget, 17.6 per cent from the state budgets (constituent republics), and 50.9 per cent from the local budgets.

Expenditures for national defense, as a result of the insecure international situation in Europe, have risen rapidly since 1934. In that year the item of national defense figured in the budget at 1.8 billion rubles and rose steadily to 6.5 billion rubles in 1935, 14.8 billion in 1936, 20.1 billion in 1937, 23 billion in 1938, 40.8 billion in 1939, 57 billion in 1940, and 70.9 billion in 1941. Almost one-third of the budget is absorbed by appropriations for national defense. If we take into account the fact that a considerable part of the outlays for industry likewise serve military ends, we will gain some idea of the enormous burden which the national economy and the people had been bearing for national defense in the last few years before Russia was drawn into the war. It may be definitely asserted that the preparation for defense has been a most important contributory cause of the tax burden.

The national budget is a consolidated budget including

the federal, state (constituent republics), and local budgets. The items of revenue and appropriations under each of these three budgets are drafted and approved by the Supreme Council (highest representative body) of the U.S.S.R. The Supreme Council also decides which particular revenues are to be assigned to the state and local budgets and to what extent. Thus in 1940 it decided that all revenues needed to cover the expenditures for cultural needs were to be assigned to the state budgets; the revenues from income taxes and from the agricultural tax were to go to the state budgets to the extent of 75 per cent; 25 per cent of receipts from loans were to go to the state budgets and 25 per cent to the local. Receipts from the largest source of revenue, the turnover tax, are distributed among the three budgets according to fixed ratios.

The financing of local administration and of a considerable part of the expenditures for cultural purposes fall to the local budgets. Table 26 shows the distribution of revenue and expenses among the various budgets in 1940.

TABLE 26. *Federal and State Budgets in 1940**

(In million rubles)

	Receipts	Expenses
National Budget of the U.S.S.R.	183,954.6	179,913.4
Federal Budget of the U.S.S.R.	141,094.9	137,053.6
Total Budgets of Republics	42,859.7	42,859.7
including		
Budget of the Russian Republic	25,244.2	25,244.2
Budget of the Ukrainian Republic	8,096.4	8,096.4

* See budget report of Commissar of Finance Zverev for 1940, and draft of the budget for 1941, *Pravda*, February 26, 1941.

Of the 42.9 billion rubles of budgetary revenue accruing to the republics, 28.3 billion go direct to the states, while 14.6 billion go to the local administrations. In addition, the states cover any deficits which their local administrations may incur under the budgets. For 1941 the national budget amounted to 216.8 billion rubles, of which the federal budget

was 170.2 billion rubles while the state and local equaled 46.6 billion rubles.

From the foregoing it is clear that the states (republics) have no autonomous budgets and no separate sources of revenue. They receive appropriations for definite purposes fixed in the budget which has been approved by the Supreme Council. Actually they constitute the executive organs for carrying the budget into effect.

MONETARY SYSTEM, CREDIT, BANKS

The Soviet economy is a money economy. Notwithstanding the fact that, according to the official Communist ideology, the "Third Five-Year Plan is the period of transition from Socialism to Communism" and that "Socialism in the U.S.S.R. has proved the victor in the economic field," the entire economy of the country is a money economy; every product constitutes a market commodity not only in the export trade but in the internal market in which the laws of the monetary economy continue to function. Although the part usually played by money has undergone some modifications in the Soviet system, it continues to perform its basic functions in the U.S.S.R.¹³ Questions of cost of production, price, credit, and capital accumulation continue to exist and all government undertakings are conducted on principles of cost accounting and are controlled by the administrative offices, not only according to their concrete results but on the financial side as well, which has come to be known as the "ruble control." After some hesitation the Communist economists have come to admit that money plays the decisive role in the economy of the country.¹⁴ It is the basic instrument of distribution and redistribution of material resources; it is the instrument for commodity exchange between city and country and between the people and the state; it continues to serve as the instrument of capital accumulation as well as the instrument for accounting in the

¹³ V. Dyachenko, *Theory of Money and the Credit of the U.S.S.R.*, p. 92. Gosfinizdat, 1933.

¹⁴ V. Dyachenko, *The Role of Money in the U.S.S.R.*, p. 79. Gosfinizdat, 1933.

planned economy and of control in government undertakings. Since the monetary reform of 1924 the Soviet government has succeeded in stabilizing its new currency and naturally strives to maintain stability at least within the country. Until 1929 this stability was attained mainly by moderation in the issue of paper money. During this period complaints against "the dictatorship of the finance department" were constantly heard at all industrial conferences.

Starting in 1922 with the first issue of the chervonets, by 1928, at the start of the First Five-Year Plan, the bank note and the treasury note circulation had reached 2,028 million rubles. Increased appropriations for plant building, coupled with a slowing up of the rate of increase of commodity production, as a result of the concentration of effort on rapid industrialization, seriously endangered the stability of the currency. There was a great increase in the circulation of money through payments for wages, raw materials, and food; on the other hand, commodities could not enter the general markets for several years until the newly built plants had created the necessary machines and machine tools and these in turn could turn out the products for general consumption. There was thus a pressure of money on the market, causing inflationary effects. After a few years of manifest decline of the chervonets, both in and out of the country, the administrators of the Soviet economy decided upon closing the borders of the country as a method of maintaining the value of the currency inside; this was coupled with the elimination of money payment, in the settling of accounts between government enterprises, through the use of bank accounts, and the adoption of fixed prices on commodities. This method, which in a modified form is used also in Germany, created a unique situation which prevents inflation from manifesting itself as it does in countries which have free stock and commodity markets and free exchange markets. The money exchange rate in Russia is determined by the government because there is no free money market, prices for commodities both in government trade and in that conducted by co-operatives are likewise fixed by the government. Prices in the markets are determined by supply and

demand, but here, too, the government, as the owner of the great bulk of the market commodities and as the biggest buyer, as well as through legal and administrative measures, can materially influence the price level. Through its monopoly of foreign trade, the Soviet government is able to regulate the exchange rate in foreign trade. The Russian ruble is not officially quoted in foreign markets and the world markets do not reflect the fluctuations of its exchange rate. In order to maintain an artificial rate of the ruble in and out of the country, the government was forced to forbid the exchange of rubles for foreign currency, to establish an obligatory rate of exchange, to prohibit the import and export of the Russian ruble across the frontier.

The decline of the ruble inside the country manifests itself in the great rise in the prices of those commodities, chiefly industrial, whose prices are not fixed, as well as in the increase in the goods famine, caused by the fact that people prefer to convert their savings into commodities rather than keep them in rubles.

The five-year plan allowed for an emission not to exceed 200 million to 250 million rubles a year,¹⁵ which it called the "concealed reserve." The First Five-Year Plan proposed a cautious attitude toward the stability of the money system, believing that the upsetting of the stability of the chervonets might have a destructive effect on the fulfillment of the plan. But the necessity of resorting to emissions in ever-growing amounts prompted some of the leading industrial circles to advance the idea of the liquidation of money altogether. Once more the idea was advanced: "To pump all that is possible out of the peasantry by means of emissions and then let the ruble commit suicide." But these proposals did not meet with success. On February 21, 1930, a decree was issued providing for "settlements between government enterprises without cash." A little later a reform was adopted which called for all financial settlements to be made on a money basis but to be conducted through the organs of the Ministry of Finance, particularly through the Gosbank (Bank of the U.S.S.R.). All accounts with workmen and peasants, all

¹⁵ *The First Five-Year Plan*, Vol. 2, Pt. 2, p. 334.

administration expenses and expense for the Red Army were to continue to be settled in cash. The quantity of newly emitted currency continued to grow rapidly.

TABLE 27. *Emission of Currency**
(In million rubles at end of each year)

Kind of Currency	1926	1928	1929	1932	1933	1936
Bank Notes	1,195	1,821	1,537	4,099	3,433	8,020
Treasury Notes	..	..	1,074	3,950	3,061	2,801
Auxiliary Coins	160	207	250	364	368	435
Total	1,355	2,028	2,861	8,413	6,862	11,256

* Table compiled from *Monthly Bulletin of Statistics*, League of Nations, 1932-1939. *Report of the Bank of the U.S.S.R. to the All-Russian Conference of Soviets*, p. 16. Moscow: Gosbank, 1935.

While the authors of the First Five-Year Plan proposed to limit the emission of paper money to a maximum of 250 million rubles annually, the actual emission during the period covered by the plan was 1.5 billion rubles per annum.

During the Second Five-Year Plan, although a part of the money was withdrawn from circulation and the rate of emission was somewhat reduced, still the amount of money printed was not less than 700 million rubles per annum. During the period of the First Five-Year Plan the rate of paper emission was clearly surpassing the rate of increase of commodities reaching the market. During this period inflation assumed menacing proportions: in 1932 money in circulation increased 37.7 per cent while the national income increased only 11.2 per cent and freight increased only 4 per cent.¹⁶

During the period of the Second Five-Year Plan the stability of the ruble was once more restored, favored as it was by two circumstances: (1) the increase of the supply of commodities on the market; (2) the withdrawal from cir-

¹⁶ *Plan for National Economy for 1935.*

ulation of a large amount of money by the government. Money in circulation in 1935 increased only 8.5 per cent while freight increased 13.2 per cent and the national income increased 16 per cent.¹⁷ It is impossible to present an analysis of the money in circulation and the relation between its growth and the increase in internal commerce during the last few years, because since 1936 no figures have been published of the money in circulation in the U.S.S.R.

Since 1934 the ruble has been strengthened and no new inflationary declines have been observed. The stability of the currency and the settlement of foreign trade balances has been greatly helped in the last few years by the enormous increase in the production of gold. No official data on the production of gold has been published in Russia since 1927, but the statistical department of the League of Nations¹⁸ has published an estimate based on the work of its experts, including persons who were employed in the Russian gold mines. According to these estimates, the production of gold in the U.S.S.R. has increased from 40,000-49,000 kilograms in 1930, to 136,000-168,000 kilograms in 1937, a more than threefold increase. This great increase is accounted for by the finding of new gold mines in Siberia and the introduction of modern methods in the old mines. In 1930 the U.S.S.R. produced 8.3 per cent of the world's gold output, in 1937 its share amounted to 16.2 per cent. The increase in the production of gold enabled the country to pay for its purchases abroad in gold instead of being obliged to export raw materials and grain.

Banks, savings banks, and the credit system all assume a unique aspect in the U.S.S.R. At first it was proposed to liquidate them. As is well known, one of the first acts of the Soviet government was the nationalization of banks and credit institutions. In the period of War Communism, when there was no money and the system of distributing commodities was completely regulated by the government, there were no functions for the banks to perform and they were liquidated.

¹⁷ *Monthly Bulletin of Statistics*, League of Nations, 1937.

¹⁸ *Ibid.*, 1939.

However, the restoration of commodity markets, the introduction of accounting principles in the conduct of government undertakings, the restoration of commerce—even though it was monopolized by the government—and the abolition of moneyless distribution, the restoration of monetary accounting in industrial undertakings and in the relations of the state with the peasantry, and the wider use of the budget system in the country's economy, all combined to prompt the government to restore banking and credit institutions. In 1921 the first Soviet bank, known as the Gosbank (Bank of the U.S.S.R.) was organized; later other state banks were created to perform special functions such as the Co-opbank to finance the co-operatives, the Vnieshtorgbank to finance foreign trade, the Selbank to finance agriculture. All these are government banks and subject to the control of the Commissariat of Finance. Only the Gosbank has the right of paper emission. All credit and financing of the national economy is likewise handled by the Gosbank and its branches.

The role of the banks has greatly increased since the adoption of the credit reform of 1930-1931. Inasmuch as the government undertakings had to operate on a commercial basis, to buy and sell and work for a profit, they found themselves in need of credit to finance their operations in working for future delivery. Prior to the credit reform, when called upon to extend credit to government undertakings, banks took into account the credit reliability of their clients. Since the reform they have been obliged, in addition to considerations of a commercial character, to consider to what extent the operations of the government undertaking are in accord with the plan for the given industry or undertaking. When credit is granted for commercial operations, both sides must draw up an agreement and submit it to the Gosbank for approval. The promissory note has been abolished; its place has been taken by the settlement through banks by check. Government institutions are not allowed to settle financial relations with each other on a cash basis but must do so through the Gosbank, which has the right to exercise control over all these operations. Transactions between government institutions

can be settled in cash only if payments do not exceed 1,000 rubles. About 90 per cent of all money transactions of government institutions and of money collections from the people pass through the Gosbank and its branches.¹⁹ The effect of this reform has been to reduce somewhat the need for cash money and to that extent to reduce the rate of inflation; at the same time, however, it introduced many complications into the Soviet economy. The attempt on the part of the Gosbank to exercise the "ruble control" caused considerable embarrassment to the higher administrative organs directing a given undertaking. Under the conditions of the Soviet planning system, when plans are changed time and again by order of the planning institutions, the interference of the Gosbank creates confusion. The primitive financial methods in various government undertakings whose managers were unaccustomed to the checking system, coupled with the necessity of tying in the bookkeeping with the banking account, resulted in the check accounts causing utmost perplexity. At the same time the simultaneous opening of hundreds of thousands of bank accounts by industrial and commercial undertakings, in the absence of trained personnel in the banks, made control of check accounts impossible, since the banks frequently did not know the exact state of the accounts of their clients when checks were presented.

Much friction arose between the banks and their clients—government undertakings—when the latter were refused credit.

The finance department of the U.S.S.R. warned the undertakings that unless they put their financial house in order the bank would treat them as bankrupts and put up their property for sale at auction. This caused an outburst of indignation on the part of the industrial and trade administrators: "Is it possible that the Gosbank is going to put up at auction railroads which are operating at a deficit, or refuse to a co-operative the means of supplying the needs of a whole region, merely because the co-operative has exceeded its credits?" The threat, of course, was not carried out but

¹⁹ N. Margolin, *Balance of Money Income and Disbursements of the Population*. Gosplanizdat, 1939.

the system of fines as a form of financial discipline for violation of contracts for delivery continues to be applied widely. The credit reform has failed to solve the problem of mutual relations between two systems: that of present-day Soviet economy and that of the planned budget method and principle of accounting; it has only increased the confusion.

As a result of these numerous functions of the Gosbank, its volume of business has steadily increased: in 1932 it equaled 280 million rubles; in 1934, 375 million rubles; in 1938, 684 million rubles. Banks also handle the sale of government bonds and payments of interest and lottery winnings on government bonds.

The U.S.S.R. also has a system of savings banks. Savings banks accept savings, pay low interest rates thereon, and carry out commissions of their depositors for the purchase of government bonds which they keep in custody. The number of savings banks in 1929 was 16,000. They grew to 37,000 in 1935 and to 41,000, including branches, in 1940. Deposits amounted to 315 million rubles in 1929, to 1,180 million in 1933, to 6,200 million in 1938, and to over 8.8 billion rubles in 1940. The average deposit per person in the cities was 56 rubles in 1929, 478 rubles in 1938, and in the rural districts was 22 rubles in 1929 and 407 rubles in 1938. This clearly testifies to the increase of prosperity for some groups of the population and to their confidence in the stability of the ruble. There has also been an increase in the savings bank deposits of the kolkhozes. All the available funds of the savings banks are invested in Soviet bonds, according to law.

CHAPTER SEVEN

GEOGRAPHICAL DISTRIBUTION OF INDUSTRY IN THE CONSTITUENT REPUBLICS AND REGIONS

OLD Czarist Russia was a country with a comparatively well-developed center of industry and poorly developed outlying regions. Ninety per cent of all industry was concentrated in three regions: around St. Petersburg, around Moscow, and in the Ukraine. Manufacturing industries grew up around St. Petersburg and Moscow, coal mining in the basin of the Don River known as the Donbas, mining and working of metals in the Don basin and the Ural Mountains, the oil industry around Baku. The textile industry was developed to some extent in the Ivanovo-Voznesensk region, the food industry on the Volga, the Don, and in the Crimea. In the rest of Russia industrial development took place slowly in spite of the presence of raw materials and fuel in various regions, since the policy of the government was to treat the outlying regions—particularly those in the North, the Caucasus, the Crimea, the Middle Asiatic possessions, and the Far East—as colonies. Their task was to furnish raw materials and agricultural products to Central Russia.

This policy governed the building of railroads, the determination of railway freight rates, the building of canals, the establishment of banks, the organization of fairs, etc.

The metropolis did not want to see the outlying territories developed for fear of separatist tendencies and preferred to draw together all the means of production at the center. The same policy was followed by businessmen who built their

plants not in the region where the raw materials and fuel were, but where it was easier to establish government connections and where freight rates and credit were more favorable.

In the absence of any kind of economic plan, chance determined the location of the industrial centers of Russia. Immense areas in the North, in the Urals, in Siberia, in the Caucasus, and in Middle Asia remained totally unexplored as to their raw materials, and in those regions what industry was there was of the handicraft type.

The situation changed radically after the Revolution. It is to the great credit of the Soviet government that in formulating the plan for national economy it set itself the task of developing all the regions of the country to the fullest extent and that it has succeeded in realizing this task to a large extent.

In looking back over the Soviet government's policy in this respect, it is well to bear in mind two considerations by which it was guided in formulating its plan of distributing among the regions the productive forces of the Union. The first consideration was that of economic expediency, of establishing the factory near the source of raw materials, the development of agricultural centers for raising industrial crops in regions best suited to them by climate, the utilization of natural sources of fuel, of electric power, water transportation, and so on.

The second consideration was the economic and cultural improvement of the outlying regions. The reawakened republics of the various nationalities aimed not only at the development of the natural wealth of their regions, but displayed great activity and initiative in seeing that all the key industries be developed in their republics.

Lately, as the menace of war loomed nearer, a new consideration entered into the question of the geographic distribution of Soviet industry. First, the government, wishing to prepare for all eventualities, decided to distribute its key war industries in such a manner that they would be subject to the least danger of systematic aerial attacks; and second,

to create in the Ural Mountains, in Siberia, and in the Far East independent, self-contained industrial centers.

When the first draft of the First Five-Year Plan was elaborated, the plan for the geographic distribution of industry wore a rather superficial aspect. The authors frankly admitted that they could not prepare or adequately plan because of the absence of necessary data.

By the time of the Second Five-Year Plan an intensive study and exploration of the natural wealth of various regions had been made, through national and local means. The Academy of Science, the Geological Institute, the Gosplan, various industrial institutes, and local industrial organizations had sent out expeditions to regions that had not been sufficiently explored, to block out deposits of coal, of ore, of means of transportation, to determine the density of population and other important factors. A number of valuable reports of scientific investigations and an elaborate map of the natural wealth of the U.S.S.R. were published.¹

Even after these studies the knowledge of the extent of the natural wealth of the U.S.S.R. was still far from being complete or exact; however, the work that had been done made it possible to work out in the Second Five-Year Plan fairly detailed instructions for the economic organization of the constituent republics, territories, and regions of the country.

The Second Five-Year Plan set before itself the task of creating national centers of agriculture and industry throughout the territory of the U.S.S.R., that is to say, undertakings which—while scattered through the various parts of the country—would be of national importance.

Under the Second Five-Year Plan increased appropriations were made for the erection of plants throughout the country in the following proportion: Siberia and Central Asia, 27 per cent; the Volga region, 7½ per cent; the Ural Mountain region, 5 per cent; Northern Caucasus, 5 per cent; the Ivanov and Gorky territories, 7½ per cent. Regions which already had well-developed industries received relatively smaller industrial appropriations; thus Leningrad and Mos-

¹ Expedition of the Academy of Science, 1935.

cow received 10 per cent each, and the Ukraine received 16 per cent of the total appropriations for plant construction.² The Third Five-Year Plan proposed the creation of self-contained industrial centers in the Caucasus and in the Far East. A resolution adopted in 1939 at the 18th Conference of the Communist party provided for the creation in central regions far removed from the frontiers—such as the Urals, the Volga region, and Siberia—of industrial centers and enterprises which would duplicate and could be used as substitutes for existing industries of national importance and those large enterprises which were important to national defense.³

In addition, a new development was proposed in 1940: the various constituent republics and local organizations were asked to create in their respective territories all kinds of industries of a local character which would utilize local fuel, raw materials, and labor. This idea was advanced because once more the question of the low rate in the satisfaction of the needs of the population had come to the front in acute form. Besides, in anticipation of war, it was found expedient to safeguard the various regions from possible interruptions of supply.

This plan of decentralization of industry and agriculture was successfully tackled by the government. The raising of wheat was moved considerably to the north. In regions where no wheat had been raised before, the area under wheat cultivation now exceeds 1½ million hectares. The cultivation of cotton was introduced into the Ukraine, in Northern Caucasus, and along the Volga River. Sugar beets were introduced in the republics of Kirgizia, Bashkir, Armenia, in the Altai and Krasnodar regions, and in the Far East. The number of regions raising potatoes, vegetables, and fruit was greatly increased.

The greatest changes have taken place in industry. The ratio of the Leningrad, Moscow, and Ukraine regions to the total industry of the country was reduced from 90 to 60 per cent. As regards the production of metals, in addition to the

² *The Second Five-Year Plan*, 1935, Vol. II, pp. 240-241.

³ *Bolshevik*, 1940, No. 4, p. 17.

development of the Don basin, much was done to develop the Don territory, the Urals, and Siberia. New industrial centers were created at Magnitogorsk, in Western Siberia, and in the Far East. In 1928 the region around Krivoy Rog produced 78 per cent of all the iron ore of the country; in 1937 Krivoy Rog produced only 47 per cent, the remaining 53 per cent being produced in the Crimea, in the eastern and the central part of the U.S.S.R.⁴ The ratio of metal production in the new regions in the East went up from 16 per cent in 1929 to 29.5 per cent in 1937.⁵ New coal mines were opened in Siberia, in Kirgizia, in Kazakstan, in Kuznetsk, and on the Petchera River. The production of coal in the new regions of the Union increased to 24.5 per cent of the total production of the country in 1932, to 32.6 per cent in 1937, while the production of the Donbas went down from 87 per cent of the total in 1913 to 51 per cent in 1938.⁶ In different regions of the Union electric power stations were erected. In the Ural-Kuzbas region the electric power produced by local stations doubled. Explorations were carried on and new oil wells opened in the regions of Bashkiria, Kazakstan, the Central Asiatic republics, the island of Sakhalin, and the Perm and Kuibyshev territories. The production of oil was started in the regions of Syzran and the middle Volga which, because of their promise, have come to be known as the second Baku.

A new machine-building center was created in Ural-Kuzbas. In addition, for strategic reasons, machine-building and automobile industries were developed in the territories of Gorky, Yaroslav, Ivanovsk, the Don, Kuban, in the Volga basin, and in new industrial centers in Siberia.

New centers of the cotton industry were created in the cotton-producing regions of Turkmenia, Barnaul, Tashkend, and Siberia.⁷ The production of electric power during the period of the five-year plans increased in the Volga basin 12.4 times; in Central Asia and Kazakstan, 20 times; in Eastern

⁴ *The Second Five-Year Plan*, 1933, p. 132.

⁵ *Economics of Socialist Industry*, 1940, pp. 316-317. *Planned Economy*, 1941, No. 1, p. 32.

⁶ *Economics of Socialist Industry*, p. 316, 1940. *Bolshevik*, 1940, p. 12, No. 4.

Siberia, 31 times; in the Far East 32 times.⁷ Shoemaking plants were established in Sverdlovsk, Kuznetsk, and Tiflis. Slaughterhouses and buttermaking plants, canneries and sugar refineries were established near the sources of their supply: Semi-Palatinsk, Nalchik, on the Volga River, Kazakhstan, Kirgizia, Armenia, and Azerbaijan. The relative importance of the chief industrial regions in the middle of the third five-year period (1938) is expressed in the following figures:

Electric power. The Ukraine, 26 per cent of the total power production in the Union; the Moscow region, 14 per cent; Ural-Kuzbas, 15 per cent; Leningrad, 9 per cent; Ivanov, Gorky, and Western Siberia, 4 per cent each.

Coal. The Ukraine, 51 per cent of the total coal production in the Union; Western Siberia, 15 per cent; the Urals, 9 per cent; Eastern Siberia and the Far East, 8 per cent; the Moscow region, 7 per cent; Kazakhstan, 5 per cent.

Iron ore. The Ukraine, 47 per cent of the total ore production in the Union; the Urals, 28 per cent; the Crimea, 9 per cent; the Moscow region, 5 per cent; Western Siberia, 4 per cent.

Pig iron. The Ukraine, 52 per cent of the total production in the Union; the Urals, 25 per cent; Western Siberia, 7 per cent; Leningrad, 2 per cent.

Production of metal articles and machine building. The Moscow region, 23 per cent of the total production in the Union; the Leningrad region, 21 per cent; the Ukraine, 18 per cent; Ural-Kuzbas, 8.5 per cent; the Gorky region, 8 per cent; the Ivanov region, 3 per cent.

*Aluminum.*⁸ The Ukraine, 45 per cent of the total production in the Union; the Leningrad region, 20 per cent; the Urals, 32 per cent.⁹

Crude oil. The Transcaucasus, 63 per cent of the total pro-

⁷ *Planned Economy*, 1941, No. 1.

⁸ *Summary of Achievements of the Second Five-Year Plan*, p. 112. Report of Voznesensky, Chairman of the Gosplan, to the 18th Conference of the Communist Party, February, 1941.

⁹ It was proposed to increase the production of aluminum in the Urals (Kamensky regions) by 66 per cent in 1941 and to bring it up to 60 per cent of the total requirements of the country in 1942.

duction in the Union; the North Caucasus, 25 per cent; Bashkir and Kazakstan, 3 per cent each; the Middle Volga, 4 per cent.¹⁰

The extensive shifts of industry which have taken place since the adoption of five-year plans, the creation of new industrial centers, the mechanization of agriculture, the broadening and deepening of the cultural life of the country, have greatly raised the economic and cultural levels of the nationalities which make up the constituent republics of the Soviet Union.

In the various republics attention was first centered upon extractive industries and those branches of agriculture best adapted to local natural conditions; at the same time industrial enterprises were established for the utilization of local raw materials. Thus White Russia developed woodworking and paper industries, Azerbaijan the extraction and refining of petroleum, as well as the creation of sovkhozes and kolkhozes for the raising of cotton and fruit. Georgia developed the cultivation of tea, citrous fruit, olives and essential oils, and in the industrial field the extraction of manganese was considerably developed. Armenia, in addition to producing grapes, sugar cane, fruit and fruit canning, developed the manufacture of rubber from local raw materials, utilizing cheap water power from the Sevno-Zangensk waterfalls. In Turkmenia, Uzbek, and Tajik the cultivation of cotton, silk, and stock breeding were developed. In these three republics the extraction of oil has also been started. Armenia and Kazakstan have, moreover, become important regions for the extraction of nonferrous metals: copper, tin, antimony, tungsten, and others.

The Kirgiz Republic, on and east of the Volga, while continuing its stock breeding and raising of industrial crops, has at the same time become an important industrial center of the textile and sugar-refining industries. This republic has gradually become the chief source of supply of coal for all of Central Asia. The newly discovered coal deposits in Tash-

¹⁰ Compiled from following sources: Molotov, *Report on the Third Five-Year Plan*, 1939. *Summary of Achievements of the Second Five-Year Plan*, 1939, pp. 44-46.

kumir, in Central Asia, yield much coal. In the region of Kadamjai the extraction of lead, zinc, and antimony has been started. Rich deposits of manganese have been discovered in Oirotai, in Central Asia, and its extraction has been organized for the Kuznetsk steel plants located near Krasnoyarsk, in Siberia.

The industrialization of these republics, as well as of the outlying territories, has brought about not only material improvements but cultural advancement. There has been a rapid expansion of general as well as technical education. Confronted with the task of taking hold of new districts and new branches of industry with such means as they possessed, those charged with local administration undertook the task of training men to act as industrial managers, technicians, and skilled workers. Local schools and scientific institutions sprang up, newspapers and books published in the language of the local population multiplied.

The direction of all these activities is concentrated, in the constituent republics, in the hands of the representatives of the Central government, and of Communist organizations, just as it is in the regions of Russia proper. The schools and the press are administered by local Communists under the strict control of the Central Bureau of the party. Any deviation from the instructions of the Central Committee of the Communist party has brought severe punishment time and again, even to the sentencing to death by shooting of the President of the Supreme Soviet of the republics. All business undertakings of the slightest consequence are under the centralized management of the federal authorities, who permit no deviation, except when meeting local conditions, customs, and traditions does not in any way involve a sacrifice of the principles or directions laid down by the Central authorities. However, an objective study of the facts leads to the conclusion that the Central government, guided by considerations of national interest, has on the whole in these constituent republics followed an economic and cultural policy which has brought about a rapid advance of these formerly backward parts of the country. The Central government finances the industrialization and education of

many regions, displaying breadth of view and farsightedness in its national policy.

On the other hand, there have been not a few mistaken attempts to create industrial giants in regions bordering on wilderness; there have been local discords and friction between nationalities. Many billions of the people's money have been squandered. But on the whole, from the point of view of the interests of the entire Soviet Union, the policy of decentralization of industry has been carried through thoughtfully and has given positive results. The natural wealth of the Soviet Union has been utilized, as a result of this policy, in a more complete and rational manner. Industrial centers have been distributed more evenly over the country and have been placed nearer to sources of raw materials and cheap power. Rapid industrial and cultural advances have been achieved in the new regions. Discord and friction between nationalities have to a great extent been allayed. The needs of national defense have been taken into account in the creation of new industrial centers and in the location of defense industries. It is enough to point out that, while the industries of Leningrad, Moscow, and the Ukraine are located at a distance of 300 to 500 miles from the frontier, the Ural industries are at a distance of 1,300 miles, and those of Kuznetsk and the Central Asiatic republics are from 2,000 to 3,000 miles from the military front.¹¹ Now, with the country at war with Germany and threatened with war with Japan, the farsightedness of the policy of scattering the industrial centers has been fully demonstrated.

¹¹ *The Geographic Distribution of Industries*, "Problems of Economics," 1940, p. 5-6.

CHAPTER EIGHT

LABOR IN SOVIET RUSSIA

THE WORKING CLASS AND LABOR CONDITIONS

DURING the Revolution, and especially during the period of industrialization, the working class of Russia underwent great changes both in size and in composition. During the period of the Civil War and War Communism the workers quickly became scattered, many lost their skill and lost touch with industry. All those who had any connection with the country left town to try at least to get sustenance.

A new phase in the life of the Russian workers began with the NEP. They not only ceased diminishing in numbers, but the restoration of industry, transportation, and trade attracted a considerable number of their previously scattered ranks, and in addition drew new members from impoverished dwellers in city and country. The collapse of agriculture, with its attendant hunger in the country, prompted the peasants to leave their villages and try to find a place for themselves in the factories and mills of the city.

With the coming of industrialization, the rate of increase of the number of industrial workers became more and more rapid, both absolutely and relative to the whole population. The country districts served at that time as the prime reservoir from which the rapidly swelling ranks of Soviet industry were drawn.

Table 28 shows the scattering of working people during the first years of the Revolution and their rapid increase, both absolutely and relatively, at the time of the five-year plans. It is interesting to note that the number of workers in-

TABLE 28. *Increase in Number of Workers in the U.S.S.R.**

(In million persons)

	1913§	1922§	1926†	1929§	1932§	1937‡	1939†
Total population	139.7	131.7	147.0	154.8	165.7	169.0	170.5
Urban	25.8	21.7	26.3	29.0	33.2	..	55.9
Rural	113.9	110.0	120.7	125.8	132.5	..	114.6
Persons of working age (16 to 59)	81.5	77.8	82.3	84.7	91.2	..	98.0
Persons employed in offices and factories	11.2	6.6	10.8	12.2	22.9	27.0	28.7
Percentage ratio of workers to total population of working age	14.0	8.2	13.1	14.4	25.2	..	29.3

* *The Five-Year Plan*, 1929, vol. I.*Labor in the U.S.S.R.*, pp. 10-12. Moscow: 1936.*Planned Economy*, 1939, Nos. 5, 6.*Socialist Building of the U.S.S.R.*, pp. 8, 138. Gosplan, 1938.*Pravda*, June 2, 1939.

† Census year.

‡ Census of 1937 was officially annulled as unreliable. Census of 1939 was taken January 17, 1939.

§ Estimated for the end of the year.

creased much more rapidly than called for by the First Five-Year Plan (according to the plan there were to have been only 15,800,000 workers by 1932), but more slowly than called for by the Second Five-Year Plan (according to the plan there were to have been 29,400,000 workers by 1937).

The working class of Russia changed in its composition as well as is shown in Table 29.

The number of persons engaged in manufacturing and the building trades grew most rapidly. The rate of growth in transportation was somewhat slower. The rate of increase in the number of those engaged in commerce or connected

TABLE 29. *Distribution of Employees by Industries**
(In thousand persons)

	1913	1924	1929	1932	1937†
Total number workers and employees	11,200	8,532	12,168	22,943	26,989
Extraction of minerals and manufacturing industries	2,776	2,107	3,366	8,000	10,112
Building trades	500	287	918	2,835	2,023
Railroad transportation	1,047	806	984	1,297	1,512
Transportation by water		86	111	145	179
Other means of transportation		166	207	599	1,092
Communications (Post, telegraph, telephone, etc.)	510‡	82	120	224	375
Commerce		374	627	1,411	1,994
Restaurants and public dining rooms		33	79	515	396
Finance and credit		66	108	128	193
Education		551	819	1,351	2,303
Art				85	122
Health Service (incl. physicians, nurses, druggists, laboratory workers, hospital attendants, etc.)		271	438	647	1,118
Government administration		965	1,255	1,833	1,743
Municipal enterprises		77	123	395	754
Domestic service		193	396	..	..
Other urban occupations		280	462	341	246
Agriculture	3,000	1,785	1,576	2,857	2,483
Forestry			415	196	248

* Same sources as for Table 28.

† The distribution of employees by industries according to the census of 1939 has not been published yet.

‡ Commerce and banking.

with restaurants and public dining rooms in the period of the First Five-Year Plan was especially large. In the years of the Second Five-Year Plan the rate of increase in the number of persons engaged in public education and public health grew greatly.

Among those working in industry, the greatest increase in numbers has been among the engineers and technicians, who increased by 57 per cent during the period of the Second Five-Year Plan. The number of government employees rose rapidly (+ 101 per cent), the number of apprentices in mills and factories decreased during the same period from 485,000 to 345,000. This was due to the fact that apprenticeship in factories and mills gave place more and more to training in technical schools and institutes of technology.

The relative increase of women in proportion to the total number of workers in the last few years should be noted as especially characteristic of present-day Soviet Russia.

While in 1913 the number of employed women constituted 27 per cent of all persons employed, and that percentage increased to 29.9 per cent in 1916, it had already dropped to 27.2 per cent by 1929. By the beginning of the Second Five-Year Plan it rose again to 27.4 per cent, and by the beginning of the Third Five-Year Plan had reached 35.4 per cent. The percentage of women is especially great in industry, where it amounts to 39.8 per cent,¹ but even in building trades and in transportation, where for technical reasons the percentage of women is not great, the number doubled from 7 to 16 per cent from 1929 to 1939.

The number of boy and girl workers has decreased considerably. While in 1913 they formed 10.6 per cent of all industrial workers and by 1917 their number had risen to 14.3 per cent, by the time of the First Five-Year Plan they had dropped to 4.7 per cent. The Soviet law prohibits all child labor below the age of sixteen, while youths of sixteen to eighteen years of age are placed in a category of workers who receive the most favorable conditions as to both hours and working conditions.

¹ *Woman in the U.S.S.R.*, p. 51. Gosplan, 1937. *Planned Economy*, 1939, No. 10.

One of the greatest achievements of the Revolution was the abolition of the ten-hour day which had prevailed in Russia in the majority of manufacturing enterprises. The practical introduction of the eight-hour day took place spontaneously during the first stage of the Revolution between February and October, 1917; but on October 29, 1919, i.e., during the first days after the October Revolution, the Soviet government decreed an eight-hour day for all employees. A shorter workday of six hours was established for youths from sixteen to eighteen years, and for underground workers. The six-hour day was established likewise for white-collar workers. While overtime was widespread in both industry and government offices, even exceeding the amount permitted by law, still, in the main, the majority of workers from the time of the Revolution worked no more than eight hours per day. The Labor Code,² drawn up in 1922, confirmed these standards of working time. They remained in force until May 27, 1929, when new decrees still further reduced the working day, both in manufacturing and in other occupations. The normal workday was established as seven hours long, while for those working under difficult conditions, for example on night shifts or in mines, the six-hour day was decreed. The six-hour day for office workers remained as before.³

In 1930 and 1931 the Soviet government again made radical changes in the standards of work hours.⁴ The so-called continuous workweek was introduced. Three shifts were established in manufacturing plants, the workers and office employees working seven hours a day for five days, and resting every sixth day. Thus the definite day of rest was abolished and the workers in various plants—while they had more frequent days off—did not rest on the same days.⁵ This disorganized the work in industrial and government offices and the lives of the workers. Government offices were unable to organize effective service for the public under the

² Labor Code (published 1938), p. 104.

³ *Ibid.*, pp. 94-108.

⁴ Decrees of August 10, 1930, and November 21, 1931.

⁵ Labor Code, Pub. 1938, pp. 109-120.

system of shifting employees, while in the industrial plants the third night shift was frequently inefficient because of the irregular supply of raw and partly processed materials, and because the workers did not work as intensively at night. The greatest disadvantage proved to be the wasteful wearing out of machinery, machine tools, and other equipment, since under the continuous three-shift system it proved to be difficult to attend to the cleaning of the premises and machines, to the regular oiling of the machinery, and the necessary current repairs.

So far as the daily life of the workers was concerned, the shifting day of rest greatly complicated family life, especially in those cases where both husband and wife were employed.

On June 26, 1940, the Soviet government, impelled by the necessity of increasing the tempo of work in industry under the looming threat of war, issued a new decree in which the workday was again increased to eight hours for all workers, with the exception of very heavy work which was increased to seven hours. The six-hour day was retained for work under harmful conditions. Office workers and youths of sixteen to eighteen years of age, who previously had worked six hours a day, now worked eight hours. At the same time the continuous week for the plants and the five-day workweek for the workers were abolished. The customary six-day workweek was established, while the seventh day, Sunday, was restored as the day of rest for all workers. This considerable increase in working time was introduced "in accordance with the proposal of the All-Union Central Council of Trade Unions." In July, 1941, after war had begun, it was decided to introduce two to three hours of overtime in all industries working for the defense, with time and a half for overtime.

Wages also have undergone a series of changes. In the early years of the Soviet regime the question of monetary pay did not have decisive importance, since, in view of the free or extremely cheap distribution of rationed foodstuffs, free living quarters and municipal and other services, money earnings were relatively unimportant. The worker and mem-

bers of his family received ration cards of the first category for food and manufactured goods. Their needs were supposed to be satisfied before those of all other people by the government distributing organizations. In practice this system worked poorly because of the prevailing economic disorganization and the ineptness of the government distributing organizations; still the amount of their money earnings played a small part in the standard of living of the workers, since at that time it was difficult to obtain any food or manufactured goods in illegal markets. The situation changed somewhat during the time of the NEP, when free private markets were legalized; but even then, inasmuch as the workers were furnished with a preferential supply of goods through the co-operatives and workers' distributing centers, and the system of the so-called "socialized wages" was retained (i.e., the supplying, free or at reduced rates, of living quarters, light, heat, medical care, and children's education), the part played by wages, while greater than before, was not decisive. About the time of the First Five-Year Plan wages began gradually to gain in importance. A rental charge for lodgings was introduced (January 10 and May 14, 1928), which the worker had to pay at first in proportion to his earnings and later according to the kind of apartment occupied as well. Subway and streetcar transportation, electric light, gas, water, and sewerage also had to be paid for.⁶ In 1940 a charge was introduced for the whole population in proportion to income, for the education of children in the last three years of high school and in institutions of higher learning.⁷ From 1931 on, workers had to pay more and more for food and other rationed goods, and beginning with 1935 all rationing was abolished and the worker was obliged to obtain all his necessities for pay, either at government stores or in kolkhoz markets.

Since that time the role of wages has again become decisive in determining the standard of living of the working

⁶ L. Kaganovich, *For the Socialist Reconstruction of Moscow*, 1931, pp. 7-12. Pamphlet of June, 1930, *Rates for Communal Service*. Decree of the Council of the People's Commissars, on payment for electricity, May 14, 1937.

⁷ *Pravda*, October 3, 1940.

people. Another circumstance that had no little weight was that, since the time of industrialization, workers have had to pay out a considerable amount in taxes, excise taxes, and various contributions to government funds, union dues, and other obligations.

The First Five-Year Plan had in view an average increase in earnings of 46.9 per cent; the Second Five-Year Plan aimed at increasing the average yearly earnings by 25.3 per cent; the Third Five-Year Plan set itself the task of raising earnings 37 per cent.⁸

Since the beginning of five-year plans the system of wage payment has been organized in the following way: the economic plans allocate wage funds annually for each industry and for the individual enterprises, that is to say, they determine the amount of money that the industry as a whole and the particular plant may pay out in wages for the year. The wage fund for 1928 was 8 billion rubles; in 1932, 32.7 billion rubles; in 1937, 81.7 billion rubles, while 1942 provides for 120 billion rubles.⁹ Wherever possible the wages are on piecework or on piecework and bonus bases, with due regard to the skill required. There is widespread use of bonuses for more or better work.

The government establishes minimum rates of wages for different categories of workers and piece rates for different operations. The wage scale, which in the early Soviet regime had a range from 1 to 3, gradually became more and more differentiated until it has widened to 1 to 20.¹⁰

The average annual wage for the whole country in 1924 was 450 rubles; in 1928, 703 rubles; in 1932, 1,427 rubles; in 1935, 2,265 rubles; in 1937, 3,093 rubles; in 1939, 3,800 rubles; and in 1940, 4,020 rubles. The differences in pay for the various categories of work were great. For example, in 1935 the average monthly wage of a worker in a large-scale industry was 213 rubles; that of an office worker, 319 rubles; that of a machinist, 540 rubles; that of an engineer, 1,744

⁸ Molotov, *The Third Five-Year Plan*, p. 12. Gosplan, 1939.

⁹ N. S. Chervonnyy, *Rise in the Standard of Living of the Working Masses of the USSR*, p. 22. Socecgez, 1939.

¹⁰ "Plan," Gosplan, 1936, No. 2.

rubles, while the service personnel (porters, watchmen, charwomen, messengers) received only 89 rubles.¹¹ In recent years the spread has still further increased.¹²

Between 1932 and 1935 the low charges to workers for communal services, dwellings, and rationed supply of goods at reduced rates were gradually abolished. At the same time wages were increased and adjusted to the necessary monetary budget of the worker.

The question of real wages is one of the most complex. In Chapter IX—Standards of Living in the U.S.S.R.—more light will be thrown on the question of real wages and the standard of living of the workers.

In the field of social insurance and safety legislation the five-year plans, on the whole, retained the laws which had been adopted long before. Only unemployment insurance was abolished in 1930 "in view of the disappearance of mass unemployment in the U.S.S.R."¹³ Insurance against illness, accidents, death of the breadwinner of the family, for the birth of a child and its feeding, for burial, continue to exist. The decree of May 15, 1929, provided for old-age insurance.¹⁴ For financial reasons this new form of insurance was introduced gradually. Toward the end of the Third Five-Year Plan government old-age insurance covered all persons employed in the cities. In 1931 certain limitations were introduced on the payment of compensation to workers in cases of temporary disability: compensation is paid only to workers who have been employed in the plant for at least two years; moreover, nonmembers of unions are paid only 50 per cent of their wages.¹⁵ This decree was motivated by the desire to

¹¹ Wages are given in current rubles. In 1924 the ruble was stabilized and remained fairly stable up to 1932. In that year there were considerable inflationary fluctuations, but it is impossible to ascertain the purchasing power of the ruble in that year owing to the lack of official price indices. Since 1934 the ruble has been fairly stable in the domestic market. Wage comparisons are therefore possible only as far back as the year 1934.

¹² *Labor in the U.S.S.R.*, Statistical Reference Book, pp. 88-89. Gosplan, 1936. *The U.S.S.R. and Capitalist Countries*, p. 82. Gosplan, A. A. Arutinin, *The Great Triumphs of the Land of Socialism*, p. 78, 1937. Report of Voznesensky, *Pravda*, April 19, 1941.

¹³ Decree of the People's Commissariat of Labor, October 11, 1930.

¹⁴ *Labor*, May 16, 1929.

¹⁵ Decree of June 23, 1931.

bind workers to plants, but in practice it has deprived a considerable part of the workers of the right to relief in case of illness or injury.

Women receive maternity leave—eight weeks before child-birth and eight weeks after.¹⁶

All workers in the U.S.S.R. are entitled to two weeks' vacation with pay. The adoption of the system of monetary wages during the period of the Second Five-Year Plan has greatly reduced the benefits of the annual vacation. Previously the workers were able, to a large extent, to spend their vacations in houses of rest and health resorts free of charge. At present both transportation and the stay at a resort or rest home must be paid for, which puts them beyond the reach of the majority of workers.

In July, 1941, after Germany's declaration of war, all vacations were temporarily discontinued and workers now receive a monetary compensation instead.¹⁷

By the first years of the First Five-Year Plan the Soviet government had completed the nationalization of the trade-unions. Some of the leaders of the "right opposition" among the Communists, who were at the head of the trade-union movement, tried to oppose the speed-up policy but were dismissed by the government from their posts as officers of their unions; in some of the unions all the officers were removed, while the former leader of the trade-union movement, the old Communist, Tomsy, was shot.

After 1930 the chief task of the trade-unions, as laid down for them by the ruling spirits of the Communist party, was "to co-operate in every way in the work of industrialization according to the five-year plans." In 1933 the functions of the Commissariat of Labor were merged with those of trade-unions. All matters relating to labor or social insurance were officially placed under the jurisdiction of the trade-unions.¹⁸ The head of the trade-unions, the Communist N. Shvernik, was made a member of the Council of Commissars in the capacity of Commissar of Labor and Social Insurance.

¹⁶ Labor Code, p. 32. Published by the People's Commissariat of Justice, 1938.

¹⁷ *Pravda*, July 29, 1941.

¹⁸ Decree of September 19, 1933.

THE DETERIORATION OF LABOR CONDITIONS ON THE EVE OF
THE WAR

Beginning in 1940, chiefly under the pressure of the situation created by the World War, the Soviet government passed a number of measures which made working conditions considerably worse. In the first place, the working day was lengthened from seven to eight hours, in the case of office employees from six to eight hours; in the second place, the number of holidays in a year was reduced by eight. At the same time it was decreed that "work quotas be increased and piece rates decreased in proportion to the increase of the working day," and that "the existing rates of pay per day for wage workers, and monthly rates for salaried employees, be retained."¹⁹

Both measures meant a lengthening of the hours of work and a decrease in the hourly rates of pay.

At the ninth session of the All-Union Central Trade-Union Council, Labor Commissar Shvernik thus justified the new measures of the government:

It is impossible to avoid lengthening the working day if we wish seriously to apply ourselves to carrying out the task that lies before us. . . . And even after the lengthening of the working day and the establishment of the eight-hour day, the working day in our country is still the shortest working day in the world. . . . In capitalist countries the working class is obliged to work ten to twelve hours and more a day. The toilers are deprived of even a weekly rest as all Sundays and holidays have been entirely abolished.²⁰

The information furnished by Shvernik is incorrect. In England there is no compulsory ten- or twelve-hour day; it has been introduced only for workers in the war industries. Nor have holidays been abolished. In the United States the eight-hour day has been retained in all occupations and is coupled in most industries with a forty-hour week.

¹⁹ "Order of the Council of the People's Commissars of the U.S.S.R.," *Labor*, June 26, 1940.

²⁰ "Report of Shvernik at the Ninth Session of the All-Union Central Trade-Union Council," *Labor*, June 26, 1940.

It is interesting to note that in England the representatives of the Labor party and the trade-unions, in spite of a grievous war, insist on the retention of the eight-hour day and the established days off, pointing out that lengthening the working day and decreasing rest only increase fatigue without increasing the productivity of labor.

In 1929, when the U.S.S.R. introduced the seven-hour day, leaders argued likewise that the shorter day would only increase production, since the high labor productivity of a man working seven hours in a seven-hour day would more than make up for the reduction in hours. Shvernik, combining the posts of head of the trade-unions and that of Commissar of Labor, in 1940 abandoned this point of view and defended the necessity of increasing the hours of work in order to increase production.

No sooner was Russia drawn into the war than the directors of Soviet policy, simultaneously with the increase in intensity of labor and the discontinuance of vacations, put into effect on July 29, 1941, increased rates of pay both for regular hours and for overtime.

The decree of June 26, 1940, made conditions of labor considerably worse for workers in other respects as well. In 1938 a decree had already been promulgated which aimed by means of compulsory and repressive measures, to put a stop to the high labor turnover, absenteeism and poor discipline prevailing in industrial plants. Passbooks were introduced, without which a worker could not get a job, and it was decreed that "workers who quit their employment to take another job, even though they do so at the expiration of the legal term of employment, shall be deprived during the first six months of the right to draw sick pay." The decree also provided for "compulsory discharge for absence, and eviction within ten days from factory houses." These measures caused great exasperation among the workers at the time and served greatly to compromise the standing of the Soviet government as a social reformer; but they brought no more positive results than any other measures based merely on compulsion and penalties.

However, in spite of this lack of success, the Soviet govern-

ment in 1940 continued in the same path. By the decree of June 26, 1940, workers and other employees were bound to the particular enterprise or government office at which they were working. They could leave only by permission of the manager of the enterprise, who had the right to grant such permission only in cases of incapacitating illness, invalidism, or assignment to study. The decree made willful quitting of a job at a plant or mine a crime punishable by imprisonment for two to four months. Absence from work was made punishable by "correctional labor at the place of work for a term of six months and a deduction not to exceed 25 per cent of the wages as a fine."

Plant managers or chiefs of government bureaus "who evade the duty to prosecute employees guilty of willfully quitting their jobs or absenting themselves from work, or who hire those hiding from prosecution who have willfully quit another plant or government office" are themselves subject to prosecution and to imprisonment up to three years "for abuse of power" or "nonexercise of power."

A worker sentenced to "correctional labor" is deprived for a period of six months of the right to receive sickness insurance benefits.²¹

Since the issuance of the decree of June 26, many directors of enterprises who "shielded deliberate truants," physicians who displayed a "lack of class consciousness in the issuance of hospital certificates," public prosecutors and even judges "who shielded violators of the decree of June 26" have been removed from office and sentenced to prison. On July 17, 1940, a decree was issued by the Council of the People's Commissars "prohibiting the willful quitting of jobs by tractor drivers, brigadiers and their assistants, combine operators working at Machine Tractor Stations."²²

A number of other decrees exhibiting the same trend toward administrative coercion were issued, providing for the compulsory training, recruiting, or binding to their jobs of skilled labor.

On October 2, 1941, a decree was issued relating to "gov-

²¹ *Labor*, June 26, 1940.

²² *Labor*, July 18, 1940.

ernment labor reserves," and a decree of the Council of the People's Commissars providing for conscription of the youth of cities and collective farms to trade schools, railroad schools, and schools for apprenticeship in factories and mills.²³ On October 19, 1940, a decree was issued providing for compulsory transfer of construction engineers, master mechanics, draftsmen, bookkeepers, economists, planning experts, and skilled workmen from one enterprise or office to another, "irrespective of geographical location of such enterprise or office." The Commissariats were given the right to "order compulsory transfer from one plant to another," "to abrogate labor agreements concluded for a fixed term," and to "prolong indefinitely agreements beyond the dates of their expiration."²⁴

On July 29, 1941, after Hitler's attack on the U.S.S.R., a decree was issued making overtime labor compulsory at time and a half pay, and discontinuing vacations for the duration of the war, substituting monetary compensation for them.

UNEMPLOYMENT AND PERSONNEL PROBLEMS

The task of industrializing and reconstructing the entire economy which the five-year plans set themselves, required a tremendous number of workers, and in this respect upset all the estimates of the First Five-Year Plan.

The First Five-Year Plan estimated that by the end of 1932 unemployment would be "considerably reduced and that instead of the 2 million registered unemployed there would be only 550,000 persons."²⁵

Instead it turned out that unemployment was done away with by the end of 1930. Expanding industry was swallowing up a large and ever-increasing number of workers. The nationalization of the entire economy, the taking on by the government of many new and varied functions, and the formation of numerous national republics and autonomous

²³ *Bolshevik*, 1941, No. 17.

²⁴ *Izvestia*, October 20, 1940.

²⁵ *The First Five-Year Plan*, Vol. I. Gosplan, 1929. *The Second Five-Year Plan*, Gosplan, 1933.

regions enormously increased the number of government employees. The planning, regulating, distributing, and administering bodies of central, republican, territorial, regional, municipal, and village governments grew even more rapidly than new factories and mines.

At the same time a change was taking place in the rural districts, which considerably diminished the flow of labor from the country to the cities. The mechanization and rationalization of work in the kolkhozes decreased the number of hands required in agriculture; but fear of officially severing their connection with the kolkhozes lest they lose their rights to a share of their income and to their individual holdings, and also the hard conditions of labor in factories, caused the surplus farm hands to remain in the country and to seek work in the kolkhozes, the sovkhoses, in local trades, and in working on their own farmsteads.

As a result of all these circumstances the Soviet government found itself facing a new predicament—instead of lack of work there was a lack of workers.

The First Five-Year Plan had contemplated an increase in the number of workers of all kinds, which would bring the total up to 20,000,000 by 1932, while the Second Five-Year Plan anticipated 29,400,000 employed persons by 1937.²⁵

As shown above, the First Five-Year Plan was caught by surprise by the magnitude of the new demand for labor and had no plan worked out for supplying industry with the needed labor power. The Second Five-Year Plan proposed the following methods for accomplishing this task: It estimated a need of training 8,000,000 people to satisfy the needs of new industries, another 3,300,000 to cover natural losses, or 11,300,000 persons in all. It was expected that the chief additions to the labor force would come from the cities: youth from the working class, from the former middle-class, and women who had not previously worked in factories or government offices were to yield 7,500,000 workers according to the plan. The rural districts were to contribute the other 3,800,000 working for the first time.

In order to train these new workers, day and evening

courses, technical schools, and schools in factories were organized.²⁵

But life upset all these calculations. The need for workers grew much more rapidly than planned. By the end of 1937 the country districts were required to yield not 3,800,000, but 7,000,000 new workers. For the reasons mentioned above, the natural flow of population from the country did not yield a sufficient number of workers. Only those country youths drifted into the city who were attracted by its cultural opportunities, but they were absorbed largely by institutions, schools and universities, and their number fell far short of satisfying the demand.

In order to replenish its labor force the Soviet government, in addition to methods of persuasion, as early as 1932 resorted to coercion: the kolkhozes were required by law to send a definite percentage of their members to the cities to work in industries. In addition, large plants began to send recruiters into the country districts to hire workers. Both measures served to ease the critical situation but fell short of a radical solution of the problem of increasing the labor force.

In 1940 the Soviet government decided on a new measure to secure workers for industry. A decree was issued October 2, providing for a yearly mobilization of all boys fourteen to fifteen years old, for training in vocational and railroad schools, and those sixteen to seventeen years old for training in factory schools. In May, 1941, a decree extended this method of mobilization to girls of fourteen to seventeen to be trained in commercial schools. These "mobilizations" should embrace more than a million persons. The young people are taught at government expense from six months to three years, and then are obliged to pay it back by four years' compulsory service in government plants to which they are assigned.²⁶

This is the unusual way by which the Soviet government proposes to solve the problem of assuring to industry the necessary supply of workers.

The acute shortage even of unskilled workers led to an-

²⁶ Decree of the People's Council of Commissars, October 2, 1940.

other odd situation peculiar to the U.S.S.R.—the unusual turnover of labor. The poor pay, meager food, and bad housing, on the one hand, and the ease with which work could be found in any district, on the other, led workers to avoid staying long in one place but to travel over the country seeking the "good life." In many plants there was an almost complete change of personnel, workers as well as office employees, two or three times a year. In 1930 in the entire country 176.4 per cent of the average number of workers on the payrolls were hired and 152.4 per cent quit work. By the end of 1935 the situation had improved: 91.6 per cent were hired, 86.1 per cent quit. After 1938 the flight of labor assumed disastrous proportions. A majority of the workers hired are without any kind of skill, and their elementary training and the acquiring of skill take place in the course of their employment. In the Moscow factory, "Red Proletariat," the breaking of instruments and spoiling of materials cost the plant an average of 850 rubles per new worker in the first half of the year.²⁷ According to authoritative reports, "our industries acquire fully qualified workers only after a year (and sometimes more) of work at the plant."²⁸ Under such circumstances the rapid labor turnover seriously interferes with normal work in a plant. The Soviet government has repeatedly issued decrees binding the workers to the plants and prohibiting unauthorized quitting of their jobs, but none of these measures has had the expected effect.

A problem even more difficult to solve is the need for trained workers, mechanics, and engineers. The rapidly expanding industrial production requires skilled workers, foremen, technicians, agricultural experts, chemists, engineers, draftsmen, mechanics, builders. The growing mechanization of agricultural work requires millions of tractor drivers, combine operators, machinists, mechanics, and repairmen. The work of economic supervision, distribution, and accounting creates a demand for economists, statisticians, bookkeepers, and accountants.

The First Five-Year Plan estimated that for its fulfillment

²⁷ *Plan*, 1936, No. 9.

²⁸ *Economic Problems*, 1940, Nos. 11, 12.

it would be necessary to train 2,000,000 skilled workmen, 41,500 engineers, 20,000 technicians, 50,000 mechanics, and 23,000 agronomists. But reality upset all these calculations. During the time of the First Five-Year Plan, industry required over 3,000,000 skilled workers, more than 60,000 engineers, and over 2,000,000 technicians with the equivalent of a high school education. The Second Five-Year Plan reckoned on a need for 2,000,000 skilled workers, 200,000 engineers and technicians, and 250,000 subordinate technicians and mechanics. The Third Five-Year Plan has not published data on the required number of technically trained workers and engineers, but the problem, judging from the testimony of Molotov, has become still more acute. According to his information, the number of trained workers will have an increase of 9,000,000 in the period of the Third Five-Year Plan.²⁹ An attempt is made to satisfy the need for a technically trained personnel by hastening the graduation of students studying in advanced institutes of technology and technical schools, and by organizing technical courses, factory apprenticeship and correspondence courses. The problem of personnel is at present the most difficult aspect of the process of industrialization. The shortage of qualified workers and technical directors impedes the carrying out of the economic plans and the normal working of industrial plants.

It is well known that the number of technically trained workers in pre-Soviet Russia was not great. During the war, from 1914 to 1917, and the Revolution which followed, a considerable number of these workers were lost to the country, either through death or old age. A considerable number of skilled workers took administrative positions in the government during the Revolution. In the years of the Civil War the replenishing of the ranks of skilled workers by the younger generation was interrupted. By 1931, when the first third of the enterprises projected by the First Five-Year Plan were to begin work, an acute shortage of experienced miners, metalworkers, turners, chemists, textile workers, became apparent. During the time of the Second and Third

²⁹ *The Third Five-Year Plan*, Gosizdat. p. 44.

Five-Year Plans the shortage of technically trained plant managers became still more serious. The newly built factories and mills are frequently equipped with intricate and delicate machinery and apparatus and require the services of highly skilled workers. Plants equipped with automatic machinery for mass production do not need workers of especial skill, but they must have a fairly high degree of intelligence. But, as we have already shown, the new additions to the ranks of labor in contemporary Russia, as in prewar times, are largely beginners from the country. These workers are frequently completely devoid of any general education or understanding of how machinery or machine tools should be handled. The government has tried through daytime and evening courses and propaganda in the cities and villages to mitigate this misfortune. An especially difficult problem is that of satisfying the need for technically trained production managers in industry, transportation, and agriculture. The magnitude of the tasks set by the reconstruction and the plans, the tempo and scope of the work, have made extraordinary demands on the engineers and technicians. To fulfill the five-year plans, managers, engineers, agronomists, economists, and organizers are required of such high caliber and in such numbers as not only pre-Revolutionary and present-day Russia lacked, but of whom not many exist even in highly industrialized America. In order to work out plans for the construction of a metallurgical plant with a productive capacity equal to all the metallurgy of pre-Soviet Russia, such as Magnitogorsk, or to be able to direct plants manned by 20,000 to 30,000 workers, engineers are needed not only of unusual technical training, but with great experience and organizing ability. Pre-Revolutionary Russia had few construction engineers and organizers, and the largest Russian plants were built and directed by foreign engineers. But even that small number of Russian engineers and plant managers who were above the average and who had continued to work in the U.S.S.R. were for the most part either physically destroyed or spiritually paralyzed during the period of court trials of economists and engineers from 1929 to 1936. The immense sovkhozes and kolkhozes, far surpassing in

size even the largest farms in the United States or Canada, likewise stand in need of good managers. The ranks of agricultural specialists are sparse and totally unqualified for the complex tasks that have fallen to their lot. It is natural, under such circumstances, that the shortage of industrial and agricultural managers is felt more acutely with each succeeding year.

The first "plan to provide the national economy of the U.S.S.R. with a body of specialists" was worked out in 1930. This project estimated the number of engineers and managers required, at twenty to twenty-five times that called for by the First Five-Year Plan. The estimate was based on the recognition of "the serious gap between the national economy's need for large bodies of specialists and the possibility of satisfying that need. Our quantitative shortage of specialists is well known. . . . But what is still more serious is the inferior qualifications of these specialists."³⁰

The Soviet government endeavored to solve the problem of the shortage of technical experts in two ways: (1) by speeding up the training of specialists and (2) by drawing on foreign engineers. The reorganization of the advanced technological institutes—by shortening their terms of instruction to two years, by giving simultaneous practical experience in factories, and by relieving the students of work for the examinations—certainly increased the number but the quality of these "run-of-the-mill engineers" was so inferior that in many cases they proved to be less qualified technically than the old skilled workers. The Soviet government found it necessary to restore the former terms of instruction. The engaging of foreign experts, because of political and living conditions, did not prove satisfactory either. The total number of foreign engineers and technicians, even in those years when the system was most in use, never exceeded one thousand. Since the notorious "trials for sabotage" the number of foreigners has been reduced to a few dozen.

The work of the expert in the U.S.S.R. is difficult not only because of the immensity of the tasks but because of the

³⁰ *Plan for Providing the National Economy of the U.S.S.R. with Staffs of Specialists*, p. 215. Gosplan, 1930.

atmosphere of distrust with which the government surrounds him, seeing in each engineer a secret or potential wrecker. The show trials staged as punitive demonstrations and ending in numerous death sentences are an especially vivid illustration of the conditions under which the Soviet specialists are obliged to work. A consequence of such conditions was a considerable decline in initiative and interest in their work on the part of plant managers and engineers and their endeavor to avoid making responsible decisions in the course of their work.

The measures taken to raise the general cultural level and skill of the population, to retrain old workers and to train new ones, and to promote secondary and advanced technical education produced big results during the years of the three five-year plans. The number of engineers and technical experts increased considerably and by 1937 exceeded 1,000,000, the number of managers of industrial enterprises, government offices and institutions, workshops and kolkhozes, had doubled and amounted to 1,750,000 persons, while the number of economists, statisticians, accountants, and bookkeepers exceeded 2,500,000. The number of agronomists, surveyors, and stock breeders amounted to nearly 200,000, while the number of tractor drivers, combine operators, mechanics, machinists, and chauffeurs working in agriculture exceeded 1,500,000 by the end of 1938.³¹

Undoubtedly, during those years Russia underwent a cultural and industrial revolution. The hastily acquired knowledge was not always deep and thorough, but millions of people of all ages and social backgrounds were caught in the current of cultural and technical education. However, the cultural level from which they were obliged to begin was so low, and the demands created by superindustrialization and the reconstruction of the entire economy of the country grew with such headlong rapidity, that the acute need for trained workers was only alleviated but not solved. Besides, a new and dangerous tendency began to be manifested. The natural ambition of youth and of beginners of all ages was

³¹ Report by Molotov to the 18th Assembly of the Communist Party, 1939. *Socialist Agricultural Economy of the U.S.S.R.*, p. 45. Gosplan, 1939.

in the direction of positions in offices, the professions of medicine, teaching or engineering, but not jobs as factory workers.

The Soviet government, as has been shown, in order to ensure a supply of technically trained personnel and skilled and unskilled labor of the necessary quantity and quality, decided in 1941 to resort to compulsory mobilization of youths of fourteen to seventeen.

Aside from humanitarian objections (their forcible conscription, deprivation of the right to change occupations, the obligation of four years' labor after training), these measures are bound to fail, since forced labor is incompatible with high productivity.

A rational organization of the work, together with suitable social and economic measures, could gradually solve the "problem of personnel" without such harsh measures as compulsory mobilization. At any rate, they could considerably mitigate the acute scarcity of specialists and man power. The Soviet government does not make effective use of the tremendous reserves of labor existing in both city and country.

The acute shortage which industrial plants are experiencing in technical men and in man power in general is aggravated to a great extent by poor organization and inept utilization of available labor. A careful analysis of the make-up of the working personnel in Soviet plants shows that they contain large reserves of poorly utilized engineers and skilled and unskilled workers. Because of the absence of the necessary data, we are unable to estimate the excess of labor force that is uselessly occupied in industries, but on the basis of reports of separate surveys occasionally slipping into print in technical periodicals, we can give sufficiently convincing proof of our contention.

Toward the end of 1940 the magazine *Problems of Economics* published some interesting comparisons of the number of people working in the same kinds of plants in the U.S.S.R., the United States, and Germany.³²

The author of the study comes to the general conclusion that "in the same type of plants and workshops, a considerably larger number of people work in the U.S.S.R. than in

those of the United States and Germany." "Let us take the staffs in electric power stations. The American electric power station of South Amboy (Electric and Gas Co.) and the Kemerovskaya in the U.S.S.R. have approximately the same power (the American actually carries 2,000 kilowatts more). Each has three boilers and burns pulverized fuel. The staff of the South Amboy station consists of fifty-one men, the staff of the Kemerovskaya, of four hundred and eighty men, i.e., 9.5 times as many."³²

Nor is this an isolated case among electric power stations. According to estimates of the "Thermal Energy Project," the average ratio of the staffs of thirty-five European and American electric power stations was 1.3 persons while in the stations of the Glavenergo (Central Power Administration) in 1939 it was about eleven persons.³³

The organ of the heavy industries in the U.S.S.R., *Industry*, compared two coal mines, the Pittsburgh Coal Co. of Pennsylvania and the Lenin mine of the "Kizelugol Trust" in the Urals. Production in the United States mine is three times as great as that of the Lenin mine. At the same time, the Lenin mine has eleven times the number of technical men, twice as many miners, three times as many surface workers, eight times as many office workers, and twelve times as large a supervising staff as that of the American mine.³⁴

One of the largest steel mills in the United States, the Inland Steel Co., produces 1,500,000 tons a year with the aid of 9,200 employees. In the Soviet steel mill Dzerzhinsky, which produces about 1,200,000 tons, 20,000 were employed in 1939.³⁴

A United States Steel Corp. mill in Pittsburgh produces 1,500,000 tons of iron, 2,500,000 tons of steel ingots, and 1,700,000 tons of rolled steel. The mill has seven blast furnaces, sixty-four open-hearth furnaces and twelve rolling

³² "Surplus Labor and Productivity," *Problems of Economics*, 1940, Nos. 11, 12, pp. 106 and 110. *Industry*, March 24, 1939.

³³ *Industry*, July 18, 1940.

³⁴ *Planned Economy*, 1936, Nos. 9, 10, p. 39. "Data of the People's Commissariat of Iron and Steel Industry," *Problems of Economics*, Nos. 11, 12, p. 109.

mills. A similar Soviet mill (*Problems of Economics* does not give its name), one of the largest, recently built, and best running mills, produces 1,500,000 tons of pig iron, 1,700,000 tons of steel ingots, and 1,200,000 tons of rolled steel, has four blast furnaces, thirteen large open-hearth furnaces, and five rolling mills. Thus the American mill is about one and a half times as large as the U.S.S.R. mill. After making some corrections to make the Soviet mill comparable to the American one (eliminating the workers engaged in delivering supplies to the mill, those engaged in the sales department, the social service department, etc.), the authors of the study established that the Soviet plant employs 13,500 persons as against 5,979 employees in the American mill.

With production about two-thirds that of the American, the Soviet plant employs 2.3 times as many workers. An analysis of the make-up of the workers in the two plants shows that the Soviet mill employs four times as many repair men, five times as many workers conveying goods within the mill, four times as many technicians, and four times as large a managerial staff.

The staffs of the chief metalworking shops are also considerably greater.³⁴

These instances will suffice to warrant the conclusion that there is a tremendous excess of engineers, technicians, and skilled and unskilled workers in many Soviet plants, which under an efficient system of organization could be utilized in those plants where an acute shortage of man power and technical supervision exists.

In the opinion of those who conducted the studies above, the introduction of mechanized conveying within the plant would release millions of skilled workers. The reduction in the number of persons engaged in stockrooms, supervisory and office work, would yield another few millions. A reduction in the number of engineers and technicians working in the administrative offices of trusts rather than in the actual plants could greatly relieve the problem of the shortage of engineers and technical supervisors.

As for unskilled labor, the main reserves are to be found in the country. The Russian countryside, and especially the

kolkhozes, harbor a labor surplus of many millions. If the problem is approached from an economic point of view, there is no doubt that the kolkhozes do not efficiently utilize even half the working time of their members. Before the Revolution it was estimated that there was no less than 9 million to 10 million "surplus population" in the rural districts, i.e., people not effectively utilized.³⁵ Since the wide introduction of mechanization the majority of kolkhoz members work an average of only 40 days a year for the kolkhoz. In the opinion of Soviet economists, if the work in the kolkhozes were organized efficiently, at least 20 million workers would be released. Even if we consider these estimates to be exaggerated, there can still be no doubt that the country could furnish the city with the required labor power if the right economic incentives were created to induce a part of the members of the kolkhozes to go to work in the city factories.³⁶ To bring this about it is important not to force a formal separation of a kolkhoz member from the kolkhoz when he leaves it temporarily for work in town, and, most important, to create in the city and at the plant such conditions of labor, food, and housing as will not repel but, on the contrary, will attract new workers arriving from the country.

In addition, there is a large surplus of workers on the managerial staffs of the kolkhozes: auditors, bookkeepers, messengers, watchmen. "Without exaggeration it can be said that the elimination of surplus personnel in all the kolkhozes would release . . . over 1,500,000 able-bodied members."³⁷

There is no little excess labor in the sovkhoses as well.

To change the social order of a country, to supply the necessary workers to industry, to ease the process of proletarianization for the peasants—all these most complex problems not only were impossible to solve in one five-year plan, as its authors proposed, but still remain unsolved after fifteen years of planning.

At present the war has interrupted the normal course of

³⁵ Oganovsky, *Surplus Rural Population in Russia*. Moscow: Commissariat of Agriculture, 1919.

³⁶ *Planned Economy*, 1932, No. 2.

³⁷ *Socialist Agriculture*, Organ of the Commissariat of Agriculture, October 11, 1940.

these social processes. There is much ground for doubt that after the war ends the relations between city and country, the process of proletarianization and methods of replenishing the ranks of industry will go on in the same old way.

PRODUCTIVITY OF LABOR AND "STAKHANOVISM"

The productivity of labor in Russia was at a relatively low level even before the Revolution. The standard of output of Russian industries and the quality of their products were much lower than those of European and American firms. The average level of productivity for all Russian industry in 1913 was 35 per cent of the German, 40 per cent of the English, and 25 per cent of that of the United States.³⁸ During the first World War and the economic collapse that followed, productivity of labor in the U.S.S.R. dropped still lower. To the workers' low degree of skill were added the general disorganization of business, poor management, constant interruptions in the supply first of fuel and then of raw materials or metals, poor quality of raw materials or processed goods, poor tools and obsolete industrial equipment. But even after the industrial reconstruction had taken place in the years of the Second and Third Five-Year Plans, after the majority of the plants had been put on the highest level so far as technical equipment was concerned, Soviet industry continued to operate in a highly unsatisfactory manner. Neither the management, nor the supervisory engineers, nor the main body of workers proved capable of managing or operating satisfactorily the modern plants, equipped with intricate and delicate machinery and apparatus. The small body of skilled workers, who had become still more scarce during the time of the Revolution, were swamped by the millions of workers coming from the country and working for the first time in a factory. But the most important circumstance was that the whole order of work in the majority of the new, huge plants and mines had not been established, that breakdowns, lack of co-ordination and of balance were everyday occurrences. New and old factories, as already

³⁸ I. Kuzminov, *Stakhanov Movement, the Highest Stage of Socialist Competition*, pp. 184-188. Soceciz, 1940.

mentioned, are crowded with workers whose labor is poorly organized, with helpers and office employees whose excessive numbers greatly reduce productivity.

In the coal industry the productivity of the Russian worker in 1928 was only 44.5 per cent of that of the German worker, in the oil industry it was less than 60 per cent of the productivity of the worker in the United States. In machine building the effective machine time in the U.S.S.R. was 25-30 per cent and in the United States 60-65 per cent of the total time; idle time in the U.S.S.R. amounted to 30-50 per cent of the total work hours, in the United States 10-15 per cent. Bricklayers in the U.S.S.R. laid only one-fourth the amount that their European and American comrades did; the output of blast furnace workers was 20 per cent less than in German steel mills.³⁸

Even by the end of the Second Five-Year Plan, after a series of energetic measures had been taken by the government, the U.S.S.R., though it had progressed in productivity, still lagged far behind the United States and Germany. In 1937 a special committee of the Gosplan calculated the relative productivity of the U.S.S.R., the United States, and Germany and came to the conclusion that the average productivity of all industries in the U.S.S.R. was 40.5 per cent that of the United States and 97 per cent of Germany's.³⁹

A much more accurate way of comparing the productivity in the U.S.S.R. with other countries is by taking the output per productive worker (eliminating all those who are not employed in actual production). In 1937 the average production of coal per worker in the U.S.S.R. was 370 tons while in France it was 195 tons, in Germany 435 tons, and in the United States 844 tons. The amount of cast iron smelted per blast furnace worker in 1937 in the U.S.S.R. was 756 tons, in Germany 612 tons, in the United States 1,260 tons. In machine building the standard of the productivity of labor in the U.S.S.R. in 1936 was 41.4 per cent of that of the United

³⁸ "The USSR and Capitalist Countries," *Statistical Digest*, pp. 75-80. Gosplanizdat, 1939. These figures, being official and the result of a special study by the Gosplan, are cited here, although we believe them to be exaggerated.

States in 1929. In the chemical industry the productivity of labor in the United States is 2.4 times that of the U.S.S.R., in Germany 1.2 times the Russian level. In the cotton textile industry the amount of finished goods per worker for 1929 in the United States was 16,800 square meters, in the U.S.S.R. for 1937 it was 8,200 square meters.⁴⁰

The necessity of increasing the productivity of labor in the industries is no fiction of Soviet propaganda, it is a most acute, crying need.

Soviet economy faced the most difficult task in 1932 and faces it still—the mastering of new plants and new techniques. It was not enough to build and equip new factories, power stations and mines, they had to be organized to work efficiently and with regularity to justify the investment of many billion rubles and the agonizing sacrifices made by the people in the name of industrialization.

After the formal closing of the First Five-Year Plan in four years, this problem for the first time sharply confronted Soviet industrial management. The first industrial giants had been built and equipped at the cost of extraordinary effort and privations. But in the course of several years it proved to be beyond the capacity of “the captains of Soviet industry” to master it and force it to give uninterrupted production approaching in quantity and quality the objectives of the plan.

The wants of the population for the most necessary manufactured goods remained unsatisfied. Those branches of industry which had not been mastered held up the work even of those better organized.

The most acute problem, that of the relations between the government and the peasants, also depended entirely on the problem of overcoming the famine in manufactured goods, lowering the cost of production, and reducing the rate at which the people's savings were being taken from them. Giving up to the cities the products of the kolkhozes and the individual farm plots, the peasants demanded in return machines, implements, building materials, crockery, furni-

⁴⁰ S. Heinman, “Surplus Labor and Productivity,” *Problems of Economics*, 1940, Nos. 11, 12, p. 106.

ture, and clothing for the family. The establishment of efficiency in industry, the mastering of plant organization and layout, the reduction of manufacturing costs, the elimination of breakdowns, were not only a most important economic task but of paramount importance socially and politically.

More than that, the question of the capacity of the new Soviet economic system to survive and to progress will, in the long run, be determined by its relative productive efficiency. When first Lenin,⁴¹ then Trotsky, and now Stalin return again and again to the question "whether the Soviet economic system is more progressive than the system of capitalism," they understand that one of the chief criteria of a system's capacity to survive is its standard of labor productivity.

All three five-year plans set themselves the task of increasing the productivity of labor. Reports at the end of the First Five-Year Plan showed an increase in productivity of 41 per cent, the planned increase being 60 per cent. At the end of the Second Five-Year Plan the actual increase was 82 per cent, where 63 per cent had been planned. The report for the first three years of the Third Five-Year Plan shows a rise in productivity of 38 per cent, the planned growth for the full five years being 65 per cent.

It would appear that considerable progress has been made and the anxiety of the managers of Soviet industry seems incomprehensible. The explanation is that the data on the growth of productivity as well as that on the lowering of the costs of production is among the least reliable of Soviet statistics. The calculation of Soviet production in terms of the equivalent of 1926-1927 ruble, and the valuation of newly built machines and machine-tools never before produced in Russia, in terms of these rubles give great scope for biased estimates.

Much more significant are figures on the productivity of separate branches of industry in terms of physical output

⁴¹ N. Lenin, "The productivity of labor is in the long run the most important factor insuring the triumph of a social order," *Collected Works*, Vol. XXIV.

per worker. This data shows some growth in the productivity of labor, but a much more modest one. As we have shown, even in 1937 the output per worker in the basic industries—coal, metals, machine building—was considerably below those of Germany and the United States. But even these figures do not disclose the actual productivity of Soviet industry. The estimate of the productivity of labor is made per productive worker, as in other industrial countries, but the chief reason for the low productivity of labor in the U.S.S.R. lies in the very fact that in Soviet industries there is too great a percentage of auxiliary workers, office workers, commercial agents, etc. (see the section on Unemployment and Personnel Problems). A calculation of the production per worker based on the entire force of employees, both factory and office, would greatly reduce the figure of productivity in the U.S.S.R. as compared with other countries.

The enormous, ever-increasing importance that the growth in the productivity of labor has from the point of view of the national economy can be seen from the fact that during the First Five-Year Plan each increase of 1 per cent in the productivity of labor meant an increase in production of 310 million rubles; in the Second Five-Year Plan, 500 million rubles; while in the time of the Third Five-Year Plan, 1 per cent increase in the productivity of labor yields an increase in production of more than 1 billion rubles.

The technical equipment of plants was considerably improved from the time of the First Five-Year Plan and the first fundamental prerequisite for growth in the productivity of labor was thus at hand. The supply of industries with raw materials and fuel was somewhat improved. But the reports for 1938 and 1939 refer to numerous cases in which entire factories, plants, and machine tools stand idle during whole shifts. The mechanization of the process of production has greatly increased in the plants, but what have chiefly been mechanized are the key processes while the subsidiary ones are still in a large measure accomplished by hand. For example, the degree of mechanization in the mining of coal has reached 90 per cent, while the breaking down, piling up,

and carting away are carried out by hand to the extent of 60 to 76 per cent.⁴²

Lack of co-ordination in the work of the supply departments and the assembly sections of the plants, inadequate supply of parts or processed materials, ill-timed carrying out of preparatory or repair work, a break in the technical process, failure to deliver raw materials, tools, drawings on time—such are the defects in the organization of the work, and such the causes of the plant shutdowns which sharply lower the productivity of labor. Lowering of the productivity is caused also by the high percentage of defective or uncompleted products. For example, at the plant "Electric Power" the percentage of scrap metal from lathe work amounted to 56 per cent; in the plant "Marx" it was 49.5 per cent. The percentage of defective fabrics in the textile mills is two or three times above normal.⁴³

Absences of workers and unsatisfactory discipline in the factories also play an important part in the results. As pointed out above, the enormous percentage of workers fresh from the country and lacking the necessary educational background and the high labor turnover are among the chief reasons for the poor discipline among the workers. The Soviet government tried to improve discipline in the industrial plants by establishing factory regulations. The manager was given sole power over the plant. All interference with discipline on the part of trade-unions or representatives of the workers was done away with. Orders given by anyone of the factory administration, down to the foreman, had to be obeyed. The system of piece rates and bonus was introduced. For absence and tardiness severe fines and punishment were imposed, up to discharge and eviction from the factory-owned dwelling.

None of these measures, however, had any effect. Then, in the middle of the Second Five-Year Plan, it was decided to raise production through the introduction of competitive

⁴² *Planned Economy*, 1940, No. 3, p. 157.

⁴³ Eighteenth All-Union Conference of the Communist Party. *Bolshevik*, 1940, No. 23.

contests and the encouragement of individual effort to the greatest possible extent.

It was decided, by encouraging individual workers to break records, to break through the inertia of established and obstinate routine, antiquated methods and low standards of output, and then, on the basis of these examples and records, to raise the general standards of output, tighten discipline, and thus attain a sharp and rapid rise in productivity.

On August 31, 1935, a workman by the name of Alexei Stakhanov, using a pneumatic hammer, produced in six hours 102 tons of coal instead of the usual quota of 6 to 7 tons, and earned 225 rubles in one day.⁴⁴ This output, 15 times higher than the established production standard, created a sensation. The Soviet press announced a competitive contest. By October, 1935, the miner Andrei Gorbatiuk, produced 405 tons of coal in one day, or four times as much as the sensational record established by Stakhanov. Skillful propaganda started a record hunt in all branches of industry and a passionate search for new methods by which to increase output. The blacksmith Boosygin in one day forged 1,146 crankshafts instead of the standard 675. A worker in a shoe factory, Smetanin, turned out 1,820 pairs of shoes instead of the standard 680. The Vinogradov sisters, weavers, instead of tending the normal 26 automatic Northrup looms, began to operate 216 looms each. The kolkhoz worker, Maria Demchenko, succeeded in raising 523 centners of beets per hectare. The bricklayer, Zhmurin, laid 6,554 bricks in 7½ hours, etc.⁴⁵

Competition for greater output embraced all occupations and traveled from one establishment to another. This system was named "Stakhanovism" and was proclaimed a universal panacea for increasing the productivity of labor.

What was the secret of Stakhanov's record? It was elementary, not new but entirely correct. Stakhanov established a strict division of labor in his brigade. Stakhanov worked

⁴⁴ *For Industrialization*, Sept. 4 and Nov. 15, 1936.

⁴⁵ *Plan*, 1935, Nos. 22, 24. O. A. Yermanski, *The Stakhanov Movement and Stakhanov Methods*, p. 5, 6. 1940.

with the hammer, two timbermen did the shoring, while the other workers carted away the coal. In addition, he began to work at longer stopes and well organized the preliminary preparation of the plan of work, saw to it that he had good tools, attended to the preliminary testing of the hammer, and so on. The same method with some variations in the system of the division of labor, depending on the occupation, was used by the other record holders—Stakhanov's followers. The old work standards were left far behind, they were exceeded five-, ten-, fiftyfold. The decision to do away with the old standards was, on the whole, justified. Most of them had been established long before without taking into account new equipment and methods of work. The mere fact that in the majority of plants, before Stakhanov, the standards were habitually exceeded by 75 to 90 per cent of the workers was a sufficiently clear indication that they were outgrown. Industrial managers were faced with the urgent task of revising the old methods of work, introducing strict division of labor, separating the skilled parts of the operations from those requiring little skill, organizing the workshops and, wherever possible, arranging for a continuous flow of work. It was also necessary to re-examine all the technological rules, time allowed for chemical and various other processes, in the light of new technical methods. It is characteristic of the prevailing conditions and of the state of industrial management in the newest Soviet plants that these urgent and elementary reforms were not accomplished until the end of 1935, i.e., "the Stakhanov movement."

It is important to note in the Stakhanov movement, apart from the staging on the part of the industrial managers, the public participation by the young generation born in the years of the Revolution, and the atmosphere of heightened interest among the people in general, in the records of miners, metalworkers, and weavers. All these are factors which under skillful and farsighted leadership could have enhanced the constructive elements undoubtedly present in the movement. The problem of scientific management of industry might have been well and quickly solved by the meeting of the two

streams of effort, one from the management and the other from the mass of workers.

In practice it all turned out differently. A campaign began against all "scientific norms and rules." Stakhanovists were charged with exceeding all "limits," technical rules, "temperature norms," the prescribed time for heating steel, methods of rolling steel, standards of quality.

Spurred on by party organizations, this campaign against "reactionary technical science" soon began to exercise a harmful influence on labor management in the factories—the authority of the engineer and the technical supervisor was undermined and normal work came to an end. The attempts of some engineers and plant managers to direct the wave of Stakhanovism into channels of efficient and much-needed work of rationalization, were decried as "sabotage." The higher authorities directed the engineers to co-operate in every attempt to establish new records or break down old standards.

The wholesome effort to direct the redoubled attention of all workers in a plant from the engineer to the unskilled laborer, to the rationalization of the work, and the effort to bring that about through an appeal to the civic and personal interests of the workers brought some good results but they might have brought far more.

The Stakhanovist, Boosygin, in one of his interviews, declared: "Now I have begun to think more about public affairs, I've begun to study." Stakhanov himself said that his dream was to "have the opportunity to study unceasingly and steadily, and to keep advancing."

The desires to improve his living conditions and to create material and cultural opportunities for himself and his family are perfectly legitimate aims for the worker. But the trouble with Stakhanovism was that in many industrial plants it soon degenerated into a craze for record breaking and in practice was carried out crudely, primitively, and in an antisocial manner. There quickly developed around Stakhanovism an unwholesome atmosphere of chasing after records, rivalry, and carrying off large bonuses and earnings.

In conferences among plant managers, the top members

of the administration pointed out frankly that the craze for record breaking was necessary to provide incentives for high output and for feeling out the best methods of revision of production standards.⁴⁶ Stakhanovism became the current campaign waged by the Communist organizations. They utilized everything—youthful energy, rivalry, going after records, all that is called “Americanism” in the U.S.S.R., the desire to stand out above the mass, and the interest in high wages. As usual in a state of speculative excitement abuses crept in, in the form of fictitious records, high output in artificially prepared conditions, and so on.

The fundamental vice of Stakhanovism is that it transfers the center of gravity from the realm of scientific management and organization of production to the intensification of the individual effort of the worker. While intensity of labor is not at a high level in the U.S.S.R., still its role is insignificant as compared with factors involved in the proper organization of work. In the majority of plants the number of workers, and especially the office force, is swollen out of all proportion, division of labor is in a rudimentary state, periods of idleness caused by lack of fuel or metals are of frequent occurrence. The regularity of supply, the maintenance of machinery and equipment in working order, the quality of tools, having spare parts on hand, the right arrangement of machinery and workbenches, the quality of the blueprints, competent supervision, the supply of labor force—those are the factors which, under Soviet conditions, play an incalculably greater role than intensity of labor.

Bootikov, an oil-well drilling foreman, relates, “there we were drilling away at the oil wells by the Stakhanov method, we drilled for ten days, speeded up our work to eight times what it had been before, and then we had to stop work and loaf for fifteen days because the next job hadn’t been made ready. We could have hung *some* records.”⁴⁷

“On the eve of a Stakhanov record day the output of the mines would fall below the average, on the day of the Stakhanov record it would rise 40-50 per cent, then the next day

⁴⁶ *Industry*, December 23, 1935.

⁴⁷ *Soviet Oil Industry*, 1938, No. 4.

the output of most of the mines would drop again below the pre-Stakhanov level," relates the report of the Anthracite Mining Trust.⁴⁸

In many mills and factories a definite system has come into use for achieving Stakhanov records. They pick the best workers, equip them with good tools, organize for them an uninterrupted flow of materials, and under the supervision of the factory and party authorities "turn competition loose" and establish unprecedented records ten, twenty, and thirty times higher than the established standards.

The system of work, which had already been condemned in the period of the First Five-Year Plan and which had come to be known as "storming" (i.e., taking things by storm), was resurrected in its most pernicious form. "Under pressure of danger of not fulfilling the plan . . . to throw themselves headlong into taking the plan by storm by all sorts of wild, often plundering use of equipment, materials and tools, through a tremendous amount of overtime work, the delivery of incomplete products . . . the lightest parts. Increasing the percentage of spoilage turning out goods not as called for by the plan . . ." such is the description by Professor Yermanski of the "storming" methods to which Stakhanovism has degenerated in many plants.⁴⁹

Instead of steady, planned work, instead of the firm management so necessary for any complex, continuously operating organization, records, jumps, feverish jerks, turning the thing into sport.

After six years of Stakhanovism it is possible to summarize its achievements. It prepared the ground for a revision of production standards. They were raised everywhere in 1936: in machine construction 22-40 per cent, in metallurgy 23-37 per cent, in the textile industry 35-50 per cent, in different branches of the building trades 54-80 per cent. In 1937 and 1938 the standards of output were again considerably raised in almost all industries.⁵⁰ But in contrast to the past when

⁴⁸ *For Industrialization*, January 8, 1936.

⁴⁹ O. A. Yermanski, *op. cit.*, p. 297.

⁵⁰ A. Arutinian, *Great Triumphs of the Land of Socialism*, p. 71. Socecgez, 1939.

the general rule was to exceed the established production standards, after the standards had been raised twice, as many as 60 per cent of the workers in the metal industries fell short of the standard. In the textile industry there are plants in which only 75 per cent of the weavers and carders come up to the standard, while in the coal mines there is a systematic failure to reach the Stakhanov standards.⁵¹

Stakhanovism broke through obsolete "limits" and production standards, but in many plants it disorganized the work and had a destructive effect on the most intricate machinery and apparatus. Stakhanovism did away with the most glaring aspects of poor organization of work, it aroused an interest in good workmanship in some workers, in others a broader understanding of technical requirements. But it was unable to eliminate the main obstacle to high productivity of labor—defects in the organization of production which did not depend on the workers. But what is most important, Stakhanovism produced evil effects from a social point of view.

First of all it had an injurious effect on the physical condition of the workers. From the beginning of the craze for records the plants grew careless about safeguarding labor. The number of accidents increased, the most elementary rules of safety were grossly violated, all laws dealing with hours of labor were disregarded.⁵² The cleaning and airing of work places became casual.⁵³ In the name of achieving a record output they stopped thinking entirely of the workers' chief asset—their health. Without a word from the bureaucratized unions, the Stakhanovists in their youthful ardor, egged on by the authorities, burned themselves up to achieve extraordinary records.

The new standards were worked out not as a result of careful calculation of the average time spent in conscientious work, not as a result of long, scientific time studies, but on

⁵¹ *Labor*, September 9, 1936. *Planned Economy*, 1936, No. 8. *Bolshevik*, 1936, No. 22. *Problems of the Trade-Union Movement*, 1938, No. 7.

⁵² *Labor*, December 8, 1935, and January 28, 1936. *Pravda*, November 4, 1936.

⁵³ *Plan*, 1936, No. 18. *Problems of Economics*, 1936, No. 2. *Industry*, January 3, 1938. *Light Industry*, October 6 and 15, 1939. *Machine Construction*, February 21, 1938.

the basis of individual breakneck, daredevil deeds kindled by rewards and a love of glory.

One of the evil results of Stakhanovism was an intensification of the process of social stratification among the workers. Some of the Stakhanovists, by dint of record output and prizes, manage to earn 2,000 and 3,000 rubles a month. Some engineers who worked out ways of increasing output receive 8,000 to 20,000 rubles a month. On the other hand, the average worker receives 200 to 250 rubles per month, while the unskilled laborer gets as little as 150 rubles a month. Conditions of living, food, housing, recreation for the two groups of workers are naturally entirely different.

The mere fact that Stakhanovism caused a tremendous increase in production standards has roused sharp dislike among the mass of workers. The fact that the Stakhanovists, 5 to 8 per cent of all the workers, turned out to be in the position of a workers' aristocracy, "notables," who received wages many times greater than the rest, helped to alienate them from the working masses.

At present, toward the end of the Third Five-Year Plan, as a result of all the measures taken, the productivity of labor has risen somewhat, but as the "Study of the Metalworking Industry of the U.S.S.R." (June, 1940) and the report of Malenkov on "The Operation of Industry and Transportation" (1941)⁵⁴ show, it continues to be at a low level, lower than those of the leading capitalist countries.

At present the Soviet government in its effort to raise the productivity of labor has turned again to repressive measures. The new decrees of 1940 and 1941 (see above) attempt to strengthen discipline by binding the workers and engineers to the plants, and by long prison terms for quitting work of one's own accord, for absence and tardiness.

What, then, is the reason that the Soviet government, in spite of twenty-four years of effort, cannot succeed in securing the normal working of industry and high productivity of its enterprises, based on the social consciousness of its

⁵⁴ Resolution of the 18th All-Union Conference of the Communist Party, p. 14, Gospolitizdat, 1941.

workers? Why did Stakhanovism degenerate into "storming" and did not produce wholly desirable results?

The experience of the months of war already lived through, the tests of the extent and quality of Soviet production of war goods have shown, first of all, that Soviet industrialization has undoubtedly attained great achievements. They would have been immeasurably greater, however, if in the Soviet order, in its very structure, there were not embedded inner contradictions: a social economy and at the same time a one-man dictatorship. Appeals to the social initiative of the workers, and punishment by imprisonment and shooting for violations of factory discipline.

Discipline in a private, capitalist concern is maintained by the owner and his representatives and is safeguarded by the necessity of earning one's bread. Discipline in public enterprises can be maintained only through a combination of private interest with incentives of a public-spirited character. Soviet plants should function in an atmosphere of workers' initiative and public control. But the conditions of the political and spiritual dictatorship kill all manifestations of enterprise and initiative. Malenkov, secretary of the Central Committee of the Communist party, on the eve of war in 1941 vividly described the big and little dictators as "Soviet ignoramuses, preening themselves on their proletarian origin" or "party tongue wagers."⁵⁵

Soviet Russia lacks the necessary conditions which secure national creative power and social control, that which is usually called "a democracy of labor" and which turns out to be indispensable to the normal functioning not only of government institutions but of any factory under the conditions of a nationalized economy.

A rapid growth of production, high productivity, firm discipline, and stable authority can be secured for all industry and for separate enterprises in a socialized economy only by creating conditions of political freedom facilitating organization of the people and a spirit of public enterprise and

⁵⁵ Speech before the 18th Conference of the Communist Party, February 15-20, 1941.

initiative, all of which are conspicuous by their absence in Soviet Russia.

Private economy has been abolished but the prerequisites of a public economy have not been created to a sufficient degree. That accounts for the periodic economic blind alleys and the swings from "storming" methods to fines, from Stakhanovism to compulsory labor, from sporting feats to harsh discipline.

If the savage war now turning the work of several generations to ashes, ends in Germany's defeat, the foundations of a social economy, laid down in the years of the five-year plans, will survive. But these beginnings of a social economy will be able to develop productively and survive competition with the world of private economy only if they awaken to life social creativeness instead of private initiative, if they place beside the government plan free and popular activity and control.

CHAPTER NINE

STANDARDS OF LIVING IN THE U.S.S.R.

It is always difficult to determine the level of material well-being of a people since the criteria of their welfare are relative quantities. The social stratification of the population, the distribution of its incomes and expenditures, the actual sources of income, the average cost of food, shelter, manufactured goods, the stability of the national currency, cultural needs—all these factors must be studied in order to draw correct conclusions as to the degree of prosperity enjoyed by the people of a given country.

Such a task is especially difficult in the case of the U.S.S.R. The greater part of the income of the agricultural population is in kind. No study whatever has been made of the social stratification of either town or country. The needs of the population have greatly increased since the Revolution and have undergone substantial changes in the kind of goods in demand. The published wage rates are merely the minimum rates established by law, and only averages are published. There are no official indexes or family budgets to serve as a basis for estimating real wages. There is no regular official publication of the prices of basic articles of consumption. Until 1935 workers were paid partly in money and partly in kind. Prices for the same articles in government, kolkhoz and private stores differed widely. No studies have been made of fluctuations in the purchasing power of the ruble. Such studies of the budgets of workers or kolkhoz members as have been made relate to small groups of those most favorably situated.

Under such conditions it is impossible to give an accurate picture of the life of the workers and peasants. Many newspaper and magazine articles have been published in the Soviet on the growth of prosperity, on "the gay and prosperous life of the workers of the U.S.S.R." but not a single study of the standards of living among workers of various skills or members of kolkhozes in the different income groups. Is it any wonder in the light of these facts that a great deal of untrue and absurd information is published outside the U.S.S.R. about the nutrition, housing, and clothing of the workers and peasants?

Conscious of the complexity of our task and with the reservation that our analysis, in the absence of official data, will be only approximate, we shall nevertheless make an attempt to ascertain the economic condition of the toilers of the U.S.S.R.

Some idea of the growth in the welfare of the population may be gained from a comparison of the growth of the national income and of the output of articles of mass consumption.

TABLE 30. *Growth of National Income per Capita**
(In terms of 1926-27 ruble)†

Years	1913 = 100	1928 = 100
1913	100	93.2
1928	107.3	100
1929	121.4	113.2
1932	182.1	170.2
1937	375.8	349.3
1940	488.3	452.2

* *The U.S.S.R. and Capitalist Countries*, pp. 3, 81.

Planizdat, 1939. Report of Voznesensky on the Plan of 1941, *Pravda*, February 19, 1941.

† See statement with reference to 1926-1927 ruble on pp. 14, 15.

As will be seen from the foregoing table, the per capita

national income has greatly increased. The income in 1940 is 4.9 times as great as in 1913, and 4.5 times as great as in 1928.

No matter how imperfect the methods of computing the national income in the U.S.S.R., these figures undoubtedly reflect a rise in prosperity among the people.

As pointed out in Chapter II on "The Industrialization of the U.S.S.R. During 1929-1941," the object of the three five-year plans was primarily to develop those branches of industry which produced means of production in preference to those producing consumers' goods. As shown by the reports for the years covered by the five-year plans the latter branches of industry developed at an even slower rate than had been intended by the plans, chiefly because of lack of sufficient appropriations. Still, under the pressure of the daily needs of the people, a considerable increase in the production of food and consumers' goods took place during these years, both in agriculture and in industry.

TABLE 31. *Per Capita Production of Articles of Mass Consumption**

Products	Unit	1913	1928	1932	1937	1942 (plan)
Wheat and Rye	Kilogram	2.9	2.5	2.6	4.5	5.0
Potatoes	"	160	300	329	386	..
Meat and Fats	"	..	27.7	9.2	21.1†	43.0
Milk	"	..	195	202	170†	..
Sugar	"	9.4	7.7	5.0	14	19.7
Soap	"	0.86	0.94	2.1	3	5.2
Cotton Fabrics	Sq. meter	15.3	15.2	15.8	16	22
Woolen Fabrics	"	0.7	0.5	0.5	0.6	1.0
Leather Shoes	Pairs	..	0.4	0.5	1.0	1.45
Paper	Kilogram	1.4	1.8	3.9	5.0	..

* Table based on:

The First Five-Year Plan, 1929, No. 2, Pt. 2, p. 81.

A. Arutinian, *Great Triumphs of the Land of Socialism*, p. 91. Gosizdat, 1939.

The U.S.S.R. and Capitalist Countries, pp. 249-252.

Socialist Agriculture in the U.S.S.R., pp. 60, 73.

† Data relating to meat and fats and milk are for 1938.

In estimating per capita consumption in pre-Soviet times it was necessary to take into account exports and imports. Of late years per capita production is practically equivalent to per capita consumption because exports of grain, meat, fats, milk, and fabrics do not exceed 1 per cent of the total production; the exports of shoes, butter, and soap amount to but a fraction of 1 per cent, and only the exports of sugar are as high as 5 per cent of the total production.

Table 31 shows that the per capita production of articles of mass consumption is growing, though slowly. The per capita consumption of the pre-Soviet period has been exceeded, although the increase is inconsiderable in the case of some of the products.

It is important to note that actual per capita production is far behind the plans, as shown by the few illustrations which follow.

The plan proposed a per capita production of cotton fabrics for 1932 of 21.3 square meters; actual production during that year was only 15.8 square meters, and even as late as 1937 it was only 16 square meters. The same is true of shoes, woolen fabrics, and sugar.

In the case of milk, the plan proposed the per capita production of 252 kilograms for 1932, yet as late as 1938 the production was only 170 kilograms. The plan proposed a per capita production of 32.3 kilograms of meat and fats for 1932, yet in 1938 only 21.1 kilograms were produced per capita. The consumption of paper and soap increased greatly, even exceeding the plan.¹ Per capita production and consumption of articles of prime necessity in 1937 still was lower than in other civilized countries.

During the years 1908-1913 Russia produced less grain per capita than Germany and France, and should have been importing grain like those countries. Nevertheless, Russia was considered the granary of Europe and, as admitted by Minister Vishnegradsky, she was exporting grain at the cost of underfeeding her population.² During the period of the First Five-Year Plan the U.S.S.R. continued to export grain to

¹ See sources for Table 31.

² *Statistical Annual*, St. Petersburg, 1913.

enable it to carry out the plan of industrialization, in spite of the fact that the per capita production of grain was less than in pre-Soviet years. Since the Second Five-Year Plan actual per capita consumption of bread has greatly increased, first, because of the increase in the production of grain and, second, because the export of grain has been greatly reduced. We can see from Table 31 that the per capita production of grain in 1937 was $1\frac{1}{2}$ times as great as before the first World War; in fact, it was $2\frac{1}{2}$ times as great as in the United States and twice as great as in Germany.³

This fact is important since it shows that agricultural production in Russia has emerged from its chronic state of degradation at the end of the nineteenth century, and that it is at last able to secure to the population a sufficient supply of its basic food. But this very fact also testifies to the low standard of nutrition of the population. According to the Food Research Institute of Stanford University, countries with a low standard of living show the highest relative consumption of bread.⁴ Thus in China grain food constitutes 83 per cent of the total food; in Germany, 40.8 per cent; in England, 37.7 per cent.⁵

It is impossible to estimate from Soviet data the ratio which grain products bear to the total food intake of the population of the U.S.S.R., but it is undoubtedly a great part that bread plays in nutrition as budget studies indicate. The per capita production of meat, fats, milk, and sugar is still low, but for a proper understanding of the actual situation in this respect it is important to know that in pre-Soviet years and during the first period of the Soviet monopoly of foreign trade these products were extensively exported from Russia, while in late years almost the entire production is consumed by the people at home. In pre-Soviet times the peasants, producing meat and milk products, used meat and butter only on high holidays, and fat and milk only in small

³ Figures based on data contained in *Statistical Yearbook of the League of Nations, 1938-1939*. Geneva, 1939.

⁴ M. K. Bennett. *World Wheat Utilization since 1885-1886*. Wheat Studies of the Food Research Institutes, 1930.

⁵ League of Nations, *The Problem of Nutrition*, Vol. IV, *Statistics of Food Production, Consumption and Prices*.

quantities. The consumption of meat and butter by the working people of the cities was likewise small. Of late years the increase in the per capita production of these articles, coupled with the discontinuance of their export, gives reason to assume that their consumption has increased; but even if the entire per capita production of these products in 1937 be considered equivalent to per capita consumption it is still very low. The average per capita production (consumption) of meat in 1937 was 21.1 kilograms in the U.S.S.R., while in the United States and in England it was 62 kilograms; in Germany, 48; in Czechoslovakia, 34; and in Finland, 31 kilograms. Per capita consumption of milk in the U.S.S.R. in 1937 was 170 kilograms; in England, 400; in Germany, 355; in France, 310; and even in Poland, 225 kilograms. Sugar consumption by 1937 had increased about $1\frac{1}{2}$ times over pre-Soviet consumption but it still was only half that of Germany, $\frac{2}{3}$ that of the United States, and $\frac{1}{3}$ that of England.⁶

The progress achieved in the consumption of manufactured goods has been particularly slight. The consumption of fabrics has scarcely increased as compared with pre-Soviet years; it is only $\frac{1}{4}$ of that of the United States and England, and only half that of France in 1935. The consumption of shoes in 1937 cannot be compared with pre-Soviet consumption as at that time no count was made of the shoes produced by individual craftsmen and artisans; but as compared with other countries it is $\frac{2}{3}$ that of the United States and only half what it is in England.⁷

Our estimates give some idea of the growth of consumption among the population, but they are too general since they give only the average per capita consumption. For even in the U.S.S.R. the "average consumer" is only a figment of statistical imagination.

Let us try to analyze first of all the increase in consumption among workers and office employees during the five-year plans. In 1913 the monthly earnings of workmen and office

⁶ *Planned Economy*, 1938, No. 5, p. 85. *Problems of Economics*, 1940, Nos. 5, 6, p. 142. *Statistical Yearbook of the League of Nations*, 1938-1939. Geneva, 1939. For European countries and the United States we estimate consumption as equal to production plus imports, minus exports.

⁷ *Problems of Economics*, 1940, Nos. 5, 6, p. 149.

employees in large-scale industries averaged 24.3 rubles; in 1928, 72.5 rubles; in 1922, 122 rubles; in 1938, 185 rubles; in 1937, 287 rubles; and in 1939, 370 rubles.⁸

The average monthly earnings of workmen and office employees for the whole national economy were about 15 to 20 per cent lower than the earnings of workmen in large-scale industries.

However, figures on the growth of nominal wages do not give any idea of the growth of real wages. The level of real wages was affected, on the one hand, by the volume of rationed supplies furnished either free or at minimum prices and, on the other, by prices and the purchasing power of the ruble. Until 1929, as long as the official cost of living index was published, it was easy to estimate changes in real wages and it was possible to compare them with real wages in pre-Soviet times. Taking the official family budget index for 1927-1928 as a basis, we find that the average real annual wage for 1928 for workers and office employees in industry was 400.4 rubles, while for workers and office employees for the entire economy it was 323.4 rubles.⁹ There are no figures on the average annual earnings of workers and white-collar employees for the country as a whole in 1913, but the average annual earnings of workers in large-scale industries in 1913 was 291.6 rubles. This warrants the conclusion that in 1928 real wages for workers in industry were above those of 1913. In 1929, as already mentioned, rationing of goods was resumed and workers and office employees obtained from 70 to 75 per cent of what they consumed through the "closed" workers' distribution centers, at prices which varied according to the category of the distributing center, but in any case were many times lower than those of the semilegal private markets. In 1930 the study and publication of the family budget index was discontinued; it is therefore impossible to estimate the changes in real wages as we have

⁸ *Labor in the U.S.S.R.*, p. 81-83, 1936. *U.S.S.R., Land of Socialism*, p. 51. Report of Voznesensky, *Pravda*, February 19, 1941. Report of Zverev, *Pravda*, February 27, 1941. Estimates for 1939 based on the reports of Voznesensky and Zverev.

⁹ Official Family Budget Index for 1927-1928 is 217.3. *Family Budget Index, 1921-1930*. Gosplan, 1931.

for 1928. Nor is it possible to estimate the changes in real wages by any other method since, during the period 1930-1935, workmen and office employees were supplied with goods in different ways: first, entirely free of charge, then at low prices for rationed goods, then partly through low-priced distributors and partly through high-priced commercial stores which had been created by the government in 1932 as an intermediary stage toward abolition of rationing and, finally, entirely for pay through government stores and in kolkhoz markets.

In order to get an idea of the standards of consumption of workers and office employees during that period, one must be content with incomplete and approximate indications. The situation of the workers was bad in the first years of the five-year plans, 1929-1932, when the government, directing all its efforts and means toward the creation of heavy industry, put a brake on the production of articles of consumption and therefore deliberately followed the policy of holding down the real wages of city workers. The forced collectivization which was imposed during these years (see Chapter III on Agriculture) served still further to reduce the supply of foodstuffs to the city. Some idea of the character of the food supply furnished to workers and office employees during this period may be obtained from Table 32, showing the quantities of products and their prices during May 1930 and 1931 furnished to the workers of Moscow and Leningrad in stores of "rationed supplies" and in the free markets. This table was compiled by the writer on the basis of official data published in the *Bulletins* of the Moscow and Leningrad Soviets.

In addition to wages with which the city worker bought these supplies in government stores at ration card prices and in private stores at free market prices, the worker also received, either free of charge or at low prices, the following items: housing, social insurance, education, medical service, and various cultural services.

The year 1932 marked the beginning of the gradual transition from the system of rationing to that of purchase of all

TABLE 32. *Rations for the Months of May, 1930 and 1931**

Products	Unit	Monthly Ration	Ration Card Prices (in rubles)	Free Market Prices (in rubles)
Bread (rationed)	Kilo	25-30	1.00	2.00
Bread (white)	"	None	None	3.20-4.00
Macaroni	"	$\frac{1}{2}$ -1	0.40	0.60
Grits	"	$\frac{1}{8}$	1.00-2.50	3.00-4.00
Sugar	"	$1\frac{1}{2}$	0.60	2.40
Tea	Gram	25-50	25 gr. 0.40	25 gr. 1.20
Sunflower Seed Oil	Liter	$\frac{1}{4}$ - $\frac{1}{2}$	0.42	1.00
Oleomargarine	Kilo	$\frac{1}{4}$ -1	1.10	2.50
Herring	"	1-2	0.80-1.20	1.00-2.00
Fish	"	$\frac{1}{2}$	1.00	4.00
Soap	"	$\frac{1}{2}$ -1	0.80	2.00-4.00
Flour	"	1-2 $\frac{1}{2}$	1.40	2.00
Meat (7 rations)	"	0.40-0.60	1.00	5.00-8.00
Butter	"	None	4.60	25-30
Milk	Liter	$\frac{1}{2}$ liter for 2 days, for children only	0.40	1.50
Eggs	10 eggs	None	1.00	5.00
Potatoes	Kilo	None	..	0.50-0.80

* See A. Yugow. *The Five-Year Plan* (in Russian), p. 44, 1931.

products in government commercial stores and in the markets at prices equal for all. This transition took place gradually and proved a great hardship to workers who received low pay. The rise in wages was neither sufficiently great nor rapid to compensate for the discontinuance of rationed supplies at reduced prices. Since the transition to full or partial charges for shelter, commercial services, education, and medical services took place at the same time, the lot of the workers in the first half of 1935, before wages were raised, was distressing.

In order to give some idea of the level of real wages at that time we have calculated the cost of a number of food-stuffs in the "closed co-operatives" (distributors) and in commercial stores. In order not to be arbitrary we have taken eleven products as given in the family budget submitted to the Bureau of Labor of the League of Nations by the repre-

sentatives of Russian trade-unions in 1928¹⁰ as typical, both in selection and in proportion, of the food used by Moscow workers. This "Moscow weekly food basket" consists of:

1. Black bread	2.46 kilograms
2. White bread	0.79 "
3. Rice	0.29 "
4. Potatoes	3.04 "
5. Sugar	0.45 "
6. Soup meat	0.92 "
7. Mutton	0.17 "
8. Butter (second grade)	0.11 "
9. Milk	1.24 liters
10. Margarine	0.12 kilograms
11. Eggs	1.60

In 1928, before the introduction of rationing, the cost of such a "basket" was 2.50 rubles.¹⁰ In 1935 the cost of the same "basket" in "closed stores" was 13.38 rubles, while in commercial stores it was 34.82 rubles, i.e., two and a half times as much. Since the monthly wage of an industrial worker in 1928 was 72.5 rubles and in 1935 it was 185 rubles, it follows that in 1928 a workman could buy 29 such baskets while in 1935 he could buy 13.9 baskets in the "closed stores" and only 5.3 baskets at a government commercial store. This computation does not, of course, reflect exactly the movement of real wages, since individual workers obtained their supplies in different proportions from the commercial and "closed" stores, but the substantial reduction in the number of "baskets" which a workman could buy in 1935 in stores of either type, in comparison with 1928, shows the extent to which real wages had sunk.

Real wages were so low in the early months of 1935 that, as a result of discontent among the workers, they began to be raised, so that by October money wages were to some extent adjusted to the new system of distribution. During

¹⁰ Prices for 1928 compiled from the *International Labour Review*, 1928, Nos. 10, 11, p. 659. Prices for 1935 compiled from: *Compendium of Laws and Decrees of the Government of Workers and Peasants*, 1934, No. 445; 1935, Nos. 421, 420, 447. *Bulletin of the Economic Bureau of Professor Prokopovich*, Prague, 1935, No. 124, p. 91. S. Schwarz, "Of Daily Bread," *The Socialist Courier*, 1935, Nos. 5, 6.

that year rationing was completely abolished so that it became necessary for the worker to cover all his needs out of his pay envelope.

Fixed uniform prices were established for all important products in the government stores, which could be changed only by special instructions. Unfortunately these prices have not been regularly published and it was necessary to assemble data from a large number of sources in order to ascertain the prices as far as possible for the last few years. However, with the aid of such official price quotations as have appeared, and of studies by economists or scientific in-

TABLE 33. *Prices of Food Products in Government Stores**
(In kopecks)

Products	Units	1935 Oct.	1936 July	1937 July	1938 July	1939 July	1940 April	1940 Oct. 21
Bread, black	Kgrs.	85	85	85	85	85	85	100
Bread, white	"	100	170	170	170	170	170	170
Flour, white	"	180	290	..	290	290	..	..
Rice, second grade	"	600	500	650	650	..	..	..
Buckwheat	"	430	430	430	350	430	..	650
Milk	Liters	120	130	..	160	170	210	210
Butter, second grade		1,500	1,600	1,750	1,750	1,750	2,800†	3,000†
Eggs		40	40	40	65	75	85	..
Soup meat	Kgrs.	580	800	760	760	800	1,600	1,800
Mutton	"	600	800	800	..	800	1,800	1,800
Tea	400 grams	3,000	4,000	..	3,600	4,000	..	5,000
Sugar, refined	Kgrs.	490	410	410	..	410	600	650
Potatoes	"	30	30	30	40	60	120	116
Cabbage	"	40	..	40	57	60	..	120
Oleomargarine	"	1,050	..	..	..	1,150	..	..

* *Compendium of Laws and Decrees of the Government of Workers and Peasants*, 1934, No. 445; 1935, Nos. 421, 440, 447; 1936, No. 307; 1937, Nos. 280, 321. *Pravda*, July 30, 1936, and January 25, 1939.

Bulletin of Professor Prokopovich, Prague, 1935, No. 124.

Light Industry, May 9, 1937.

Monthly Labor Review (Report of Stewart E. Grummon, American chargé d'affaires ad interim at Moscow), November, 1939, and May and August, 1940.

† First Grade.

stitutions where no official quotations were available, we have succeeded in compiling a table of prices (p. 208) for the most important commodities in Moscow in 1935-1940. As will be seen from this table, the price of bread remained steady for a considerable period: from 1936 to October 21, 1940. Prices of meat, butter, and milk rose substantially in April, 1940. Prices of the other products were increased several times during that period. The sharpest increase took place obviously under pressure of prewar conditions in the third and fourth quarters of 1940. The table shows the prices in government stores. Prices in the kolkhoz markets are much higher for many products, especially those which are scarce in government stores. Thus prices of meat in kolkhoz markets are 50 per cent higher than in government stores, those of potatoes and milk 100 per cent. Because of a shortage of goods in government stores, the people are sometimes obliged to buy a part of the goods in the markets, at higher prices.

Widely used manufactured articles have risen considerably in price in the last few years. Thus prices of men's suits went up 45 per cent from 1936 to 1939, the price being 900 rubles in the latter year. Women's shoes rose 50 per cent, to 340 rubles; woolen cloth went up 100 per cent, to 210 rubles per meter.^{10a}

To trace the course of real wages since 1935 we shall, in the absence of official indexes or family budgets, make use of the same method of the "Moscow food basket" which we used in determining the real wages for 1935. This method yields a more accurate picture for the period 1935-1939, since, in the first place, the workman paid for all his food at prices common to all and, in the second place, he bought for the most part in government stores.

Pricing¹¹ the contents of the Moscow basket according to Table 33, we find that it cost 19.20 rubles in October, 1935, 20.80 rubles in July, 1937, and rose to 24.25 rubles in July, 1939. In 1935, after the wage increase in October, a worker in a large-scale industry received 185 rubles per month; in

^{10a} See sources for Table 33.

¹¹ *International Labour Review*, 1928, Nos. 10, 11, pp. 657-660.

1937, 287 rubles; and in 1939, 370 rubles. In other words, he could buy 9.6 baskets in one month in 1935, 13.6 baskets in 1937, and 15.7 baskets in 1939. With the average pay prevailing in the entire national economy, the worker could buy 12.4 baskets per month in 1937 and 14.9 in 1939. If we apply the same method to estimate the real wages of workers and office employees in transportation, building, public education, the number of baskets will, of course, vary, but the gradual rising trend of real wages holds good throughout.

The method of estimating real wages used here is far from perfect as it fails to take into account the cost of clothing, shelter, and other expenditures. In 1935 workers employed in large-scale industries spent about 70 per cent of their entire budget on food.¹² Nevertheless, this method warrants the conclusion that real wages, from the end of 1935 to the middle of 1939, showed a rising trend, resulting in improved living conditions among the workers. Real wages cannot be estimated for 1940, since no data is available on wages for that year. No matter how slow and slight the rise in wages was, the mere fact of a prolonged rise in welfare served to encourage the workers of brawn and brain in the U.S.S.R.: a hopeful feeling arose that upon the completion of the industrialization plans the standard of living of the people would begin to improve.

In 1938 more data was published relating to questionnaires on family budgets, which give us some idea of the life of the workers in 1936. Family budget questionnaires are among the most difficult ways of studying the material welfare of a people. They must be scrutinized all the more carefully when made in the U.S.S.R., where propaganda is the dominating motive for such studies.

However, having subjected the material used in an article by U. Shnirlin—one of the economists of the Gosplan, in the magazine *Planned Economy*¹³—to a critical examination and having detected, and allowed for, a deliberate masking of figures in the form of percentages, we nevertheless feel that

¹² *Labor in the U.S.S.R.*, p. 343.

¹³ U. Shnirlin. *Growth of Consumption by the Working Class in the U.S.S.R. Planned Economy*, 1938, No. 5, p. 75.

the picture he draws is, on the whole, fairly correct. It tells of a growth in consumption, but forces us to conclude that the level achieved is far from high.

This budget study shows that in 1936 a worker's family in Moscow consumed 20 kilograms (44 lbs.) of bread per person, per month, and 3 kilograms of grits, macaroni and other cereals. Measured by American and European standards, this is abundant but, as already pointed out, a large consumption of bread is generally characteristic of countries with a low standard of nutrition, and in this case is an indication that the nourishment of the average worker in the U.S.S.R. is not yet of high quality. According to the report, the workers of Moscow consumed from 2½ to 3 kilos (5 to 6½ lbs.) of meat and fish per month. This is lower than the standard not only for advanced countries but for most of the European countries before the German occupation. The consumption of butter and fats was about ½ kilo per month as against at least four times that quantity in most industrial countries. The per capita consumption of sugar and sweets in the U.S.S.R. was a little over one kilo per month, on a level with Poland and Bulgaria, and considerably less than in all the large countries of Europe. The Soviet worker consumed 2½ eggs per month, against 8 eggs in Austria and 10 in France. Still there has been some improvement in the diet in the last few years: white bread is gradually taking the place of black, butter is crowding out lard and vegetable oils, a greater variety of vegetables is used, and the consumption of fruit has increased.

A budget study of clothing consumption among workers in the large-scale industries of Moscow, Leningrad, Kharkov, and other large cities showed that the supply of clothing in the best paid groups was distinctly better in 1937 than in the early years of the First Five-Year Plan, but was still far from a normal satisfaction of the demand.¹⁴

The study showed that the average workingman had 1.3 overcoats, and the average workingwoman had 1.8, that is to say, even workers employed in the largest plants had, in most cases, no top coats but were limited to a winter coat.

¹⁴ Study of 7,138 selected workers. U.S.S.R., *Land of Socialism*, p. 56.

The average workman had 3.6 changes of underwear, and the average workingwoman had 4.4. Workers possess not even one complete suit, the average being 0.9 of a suit. Of shoes they have 1.5 pairs. Of course, compared with pre-Soviet years when most Russian workers had no city clothes,¹⁵ no change of underwear, the present level shows great progress; but it should not be forgotten that more than a quarter of a century has passed since then and workers' requirements have greatly increased.

About 20 per cent of all workers' families have radios, 3 per cent have phonographs, 2.8 per cent have bicycles, and 0.8 per cent have cameras.¹⁴

The standard of living of the Soviet workman is undoubtedly higher than in pre-Soviet years, and lately has been steadily rising. But it is equally true that this standard which he enjoys at the end of the Third Five-Year Plan is still far below that of workmen in other industrial countries.

In 1938 the Soviet workman was not only more poorly fed than the French or German workman but more poorly even than the Bulgarian. Compared with the Swedish workman, the Soviet worker, though he ate much more bread, had $\frac{1}{3}$ the meat, $\frac{2}{5}$ the fats, $\frac{1}{3}$ the milk, $\frac{1}{10}$ the sugar, and $\frac{1}{15}$ the eggs, not to speak of vegetables, fruit, and so on. Such was the diet of the worker employed in large plants. Naturally, the engineer, who drew a salary 8 times as high, ate much better. But, just as naturally, the less skilled workman, with wages half those of the skilled worker, was much more poorly nourished.

There has been a considerable improvement in housing in recent years. In pre-Soviet times most workmen lived in barracks or in houses without water or sewers, in basements and in garrets. In St. Petersburg, in 1908, 70 per cent of the single workmen and 43 per cent of the married ones lived in so-called corners, i.e., several in a room.¹⁶ The crowding and lack of sanitation in workmen's dwellings were appalling. After the October Revolution the Soviet government at-

¹⁵ The usual outfit of a workman in those years was a blouse and a pair of trousers. Sometimes a jacket was worn over the blouse.

¹⁶ *The Budget of Workers of St. Petersburg*, 1909.

tempted to solve the housing problem by confiscating privately owned houses and settling workers and their families in the homes of the rich and well-to-do. This policy helped to improve the living conditions of the workmen but made life miserable for everyone, including the newly settled workmen. Each apartment was occupied by several families using the same kitchen, bath, and toilet. The apartments when built had been intended for one family. Most of these houses were located far from the places of work. Soon they, too, became crowded beyond measure. During the years covered by the five-year plans, the Soviet government appropriated enormous sums of money, exceeding 20 billion rubles, for housing.¹⁷ New houses and whole settlements were built for workers near their places of work. During the Third Five-Year Plan alone, new houses having 25 million square meters (over 225 million square feet) of floor space were built.¹⁸ Although in building, as in other fields of Soviet activity, there was much mismanagement and waste, the great housing scarcity has been considerably relieved. As the Third Five-Year Plan draws to a close, over 90 per cent of all Moscow workers, 86 per cent in Leningrad, and 94 per cent in other cities, have a separate room or apartment.¹⁹ True, the time is yet distant when "every worker's family in the U.S.S.R. will have its own small apartment with bathroom, electricity, and gas range," as was indicated in the plans; still, the number of such apartments is steadily growing, and the crowding in jointly used apartments has considerably subsided. In pre-Soviet years the worker's expenditure for shelter was from 19 to 23 per cent of his budget; in 1938 it was only 4 to 5 per cent.¹⁹

We have shown that on the whole living conditions of Soviet workers are improving, though slowly. We have pointed out that, while they are better than those of pre-Soviet Russia, they still are far below those enjoyed by workers in advanced countries. But in order to understand

¹⁷ B. Veselovsky, *The Economics and Planning of Municipal Economy*, p. 162, 1939.

¹⁸ V. Molotov, *The Third Five-Year Plan*, p. 42, 1939.

¹⁹ *Planned Economy*, 1938, No. 5, p. 83.

that feeling of improvement in material well-being which prevails among the industrial workers of the U.S.S.R. in recent years, it is necessary to bear in mind the following important circumstances:

In pre-Soviet Russia only one or two members of a workman's family were gainfully employed. In periods of unemployment frequently not one member of the family had a steady job. The wife took care of the household; the rest, even the grown-up sons and daughters, were for years maintained by the head of the family.

At present all grown-up members of a worker's family are employed. The children are cared for in day nurseries, kindergartens, and schools, and most mothers work in factory or office. Soviet statistics show a steadily increasing percentage of members of families at work.²⁰ This circumstance is reflected in the family income. Even though the wage of the individual worker is not much higher than it was under the old regime, the fact that "everybody works" in the family swells the total family income and contributes to its improved well-being.

Another no less important circumstance springs from the new social structure of Soviet society. There are no longer any hard and fast lines of demarcation between differently compensated strata of society. It is true that rates of compensation range from 200 to 4,000 rubles per month. But it is not unusual to find in the same family unskilled workers earning 200 rubles per month, skilled workers earning 800 rubles, office employees drawing 1,000 rubles per month, and sometimes an engineer or a physician with a monthly salary of 3,000 to 4,000 rubles.

Another important circumstance is that for many years there has been no unemployment in Soviet Russia. Aside from the fact that a steady job helps to swell the income and the savings of the family, the absence of unemployment creates a firm feeling of security, of steadiness of income; it does away with worry about tomorrow. If we add to this the fact that the Soviet system of public education and health service relieves the head of the family of worry about his

²⁰ *Labor in the U.S.S.R.*, p. 342.

children's education and means to care for the sick, it becomes clear why even the slow growth of real wages in recent years has been taken by the workers as a substantial improvement in well-being.

Fundamentally, the same trend toward improved conditions is to be noted among the peasants. In Chapter III, "The Reconstruction of the Agricultural Economy," the condition of the peasant as producer was described. There is little exact information on the standard of living among the peasants, on their food, housing, clothing and shoes, books, medicines. During the time of the five-year plans a number of studies of kolkhozes were made, but these studies related chiefly to the production side of the kolkhozes and of those only the most "advanced," i.e., the most flourishing.²¹ No complete study of the living conditions of the kolkhoz peasants, taking in the whole of the U.S.S.R. and including their income and expenditures, has been made so far. It would be a mistake to draw conclusions as to the living conditions of the peasant masses on the basis of the studies of the "advanced" kolkhozes.

More informative are complete investigations of separate regions, especially of those which had also been studied prior to collectivization. From that point of view the most interesting study was that of the Melitopol region,²² which showed a rapid improvement in the welfare of the peasants of this region as compared with that found before the Revolution by the well-known economist, V. Postnikov.²³ A high state of prosperity was shown by a study of a few districts in the province of Voronezh. The districts had been studied before, in 1901 and in 1907, by the well-known civic leader Shingarev, and had been described in his book *The Dying Village*, in which he wrote that between the constant crop failures and the high taxes the peasantry in that part of the country "was on the verge of ruin, dying out."²⁴ Now the

²¹ Investigations of 1932, 1933, 1935, and 1937. See *Kolkhozes in the Second Stalin Five-Year Plan*, published by Gosplanizdat, 1939.

²² A. Arina and G. Kotov, *Socioeconomic Changes among the Peasantry in the Melitopol Region, 1885-1938*. Published in 1939.

²³ V. Postnikov, *Peasant Economy in South Russia*, 1907.

²⁴ A. Shingarev, *The Dying Village*, 1907.

same villages are flourishing and their prosperity is described in a special study, published by the Commissariat of Agriculture.

A number of reports have been published on trade in manufactured goods in the villages and a few tables showing increase in nutrition among members of kolkhozes in comparison with 1929 and 1932 in percentages, but without citing the absolute figures behind the percentages.

No matter how biased these studies and reports, it is nevertheless possible, after a critical check, to draw a few general and well-founded conclusions as to the conditions prevailing in present-day Soviet villages. In comparison with pre-Soviet times, the average condition of the peasants has undoubtedly improved. The standard of living of the great bulk of the peasantry at that time was exceptionally low. More than half the peasants did not have even enough bread and were obliged to add all kinds of admixtures to the flour toward the end of the year.²⁵ Only $\frac{1}{6}$ of the peasants had a surplus of grain for sale. The former "poor" peasants, as they were designated in pre-Soviet times, some 20 million to 30 million persons, landless, without horses or agricultural implements, and the 3 million agricultural laborers, now live under much better conditions in the kolkhozes. There are no "poor" left in the kolkhoz village. The standard of living of those who formerly constituted the middle class of the peasantry has likewise improved. On the other hand, the conditions of the former well-to-do peasants, who constituted about 15 per cent of the village population, has now perceptibly deteriorated. The mass of the peasants are now better nourished than they were in 1913. The most extensive investigations of the kolkhozes in the basins of the Middle Volga and the Kuban, as well as in the Ukraine, show that in 1937 the peasants used $1\frac{1}{2}$ times as much bread, $1\frac{1}{2}$ times as much milk, and 8 times as much meat and lard as they did before the first World War.²⁶

²⁵ *The Effects of Harvests and Prices of Grain on Certain Aspects of the National Economy of Russia*, pp. ii and iii, 1897.

²⁶ N. S. Chervonny, *Rise in the Standard of Living of the Working Masses of the USSR*, p. 48, 1939.

Before the Revolution the peasants of most of the regions of Russia could not afford to buy city clothes or shoes.²⁷ In 1937 the monetary expenditures of kolkhoz families averaged 5,800 rubles a year, and some reached the sum of 10,000 to 15,000 rubles.²⁸ Kolkhoz peasant families spend several thousand rubles a year for clothing, shoes, furniture, and articles for the satisfaction of cultural needs.²⁹ The second conclusion applicable to all kolkhoz members is that the standard of living of all of them has been advancing in recent years. Reports relating to all the kolkhozes of the U.S.S.R. show that their money income amounted to 4.6 billion rubles in 1932; 9.7 billion rubles in 1935, and 14.2 billion rubles in 1937, i.e., in six years it increased 3.1 times.³⁰ The income in grain per family rose from 36.6 poods in 1932 to 106.2 poods in 1937. The money income per family was 108 rubles in 1932 and 376 rubles in 1937. Finally, the total income of the peasant, consisting of receipts from the kolkhoz, from products raised on his own farmstead, and from other work, was equal to 2,132 rubles in 1932 and 5,843 rubles in 1937, i.e., it increased 2.7 times.³¹

The growth in sales of manufactured goods in the villages is an indication of the increased well-being of the peasantry. The sales of dry goods and clothing to the villages in 1932 was equal to 3,001,000,000 rubles; in 1938 it was 6,326,000,000 rubles. The sale of shoes in the same years amounted to 913,000,000 and 1,493,000 rubles; of soap and perfumery, 237,000,000 and 632,000,000 rubles; household goods, 234,000,000 and 974,000,000 rubles, respectively. Books, musical instruments, sheet music, cameras and radios sold 215,000,000 and 1,272,000 rubles' worth.³² Not only has there been a quantitative increase in consumption, but in the character of its demand the village has come much closer to the city.

During the years of the Revolution the village radically

²⁷ S. Prokopovich, *National Income of Russia*, 1914.

²⁸ *The Kolkhoz in the Second Stalin Five-Year Plan*, 1939, p. 114.

²⁹ *Socialist Agriculture*, pp. 93-95. Gosplan, 1939.

³⁰ *The Kolkhoz in the Second Stalin Five-Year Plan*, 1939, p. 115.

³¹ *Ibid.*, p. x.

³² *Soviet Agriculture in the U.S.S.R.*, p. 99, 1939.

changed the character of its dwellings. The old hut, built of clay, without a chimney, with its sleeping bunks and tiny windows, has disappeared. New houses with more light and space have been built in large numbers. The interior of the house has become cleaner; furniture, crockery, and linen have appeared for the first time. In many regions the villages have electric light, a pump, and paved streets. Public buildings have been erected for the village Soviet (council), the kolkhoz administration, the school, a hut reading room and frequently a club, a day nursery and hospital. Educational and medical facilities are much better organized than before. The villages have radios, receive newspapers, and have traveling motion pictures.

Bank deposits of the kolkhozes and of their members are growing. In 1934 the kolkhozes had 322 million rubles savings in the banks, while in 1937 their savings deposits amounted to 2.5 billion rubles. The individual deposits of their members increased almost sixfold, from an average of 23 rubles in 1932 to 134 rubles in 1939.³³

The manner of living in the village has greatly changed, approaching that of the city. The village has undoubtedly advanced toward greater material and cultural well-being, but it is only taking its first steps. Its standard of living is still rather low. Its food, its housing, its supply of clothing, are all better than they were before the Revolution, and growing year by year, but a comparison with conditions typical not only among American or Danish farmers, but even among the peasants of Latvia or Finland, would show how long a road they must still travel to reach a state of well-ordered, civilized life.

The Revolution and collectivization created the economic foundation for a growing prosperity among the peasants, but its realization is retarded by the political and social obstacles described in the preceding chapters of this book.

This was the situation up to the middle of 1940. As a result of conditions prevailing on the eve of war, prices of articles of prime necessity began to rise at that time, followed early

³³ Figures based on: *Triumphs of Socialist Agriculture*, p. 149, 1939. A. Arutinian, *The Great Triumphs of the Land of Socialism*, p. 79.

in 1941 by the disappearance of overcoats, underwear, shoes, and crockery from the Moscow stores, and of meat, butter, and vegetables from the markets. Two price advances in 1940 and one in 1941, without a corresponding rise in wages, have again seriously depressed real wages. Manufactured goods have greatly risen in price in the villages.

Matters have grown still worse since Germany's declaration of war on June 22, 1941, and the offensive against Leningrad, Moscow, and the Ukraine. In spite of the bountiful crop in 1941, the loss of large grain-producing territories, the destruction of food supplies in the occupied regions, the needs of the army and of millions of refugees, have made great inroads on the food supply of town and country. In July, 1941, the Soviet government was obliged to reintroduce card rationing of bread, butter, meat, tobacco, shoes, and clothing in Moscow, Leningrad, and other large cities.³⁴ Clothing and shoes have almost disappeared from country stores. The population has once more been plunged into the hardships of war. The people have not enjoyed even a "breathing spell" from privations. After the first World War came the Revolution and the Civil War, then the sacrifices in the name of industrialization and defense, and now the invasion by the motorized brigades of Hitler and further disasters and further privations.

³⁴ In the fall of 1941, the *New York Times* Moscow correspondent reported in the *New York Times Magazine* of September 21 that ration cards entitled workmen to the following monthly supplies: sugar, 1.5 kilos (office workers, 1.2 kilos); meat, 2.2 kilos (office workers, 1.2 kilos); flour or macaroni, 2 kilos (office workers, 1.5 kilos); butter, 0.8 kilos (office workers, 0.4 kilos); bread, 0.8 kilos per day (office workers, 0.6 kilos); fish, 1 kilo monthly (office workers, 0.8 kilos). Many products can be obtained in addition, at considerably higher prices: milk, 2.10 rubles per liter; eggs, 5.5 to 8.5 rubles for ten; apples, 5 to 10 rubles per kilo; carrots, 1.50 rubles per kilo.

CHAPTER TEN

THE SOCIAL COMPOSITION OF THE POPULATION. HAVE CLASSES BEEN ABOLISHED?

DURING the period covered by the five-year plans, radical changes in the social composition of the population have taken place. The First Five-Year Plan set itself the task of "liquidating" the exploiting classes of the city and country, but did not openly encroach on the bulk of the peasantry. The Second and Third Five-Year Plans set themselves the task of "building a classless Socialist society." In actual practice, as was shown in the section on The Economic and Social Consequences of Collectivization, the "liquidation" of the peasants working on their own farms was begun during the period of the First Five-Year Plan and was completed during the Second. During the Third Five-Year Plan the remnants of private peasantry were liquidated, and the kolkhoz system of agriculture strengthened.

Industrialization, the nationalization of all branches of the national economy down to the smallest workshop, has radically changed the social composition of the city.

Official Soviet sources give the following picture (Table 34) of the changes in the composition of the population before the Revolution and under the Soviet order.

This table is popular in official Soviet circles. It was used by Molotov as justification for the assertion at the 18th Conference of the Communist party in 1939 that "the fundamental historic task of the first two five-year periods has been fulfilled. All exploiting classes have been entirely liquidated,

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TABLE 34. *Social Composition of the Population of the U.S.S.R.**
(Percentage of the total)

	1913	1928	1934	1937	1939
Workers and office employees	16.7	17.3	28.1	34.7	49.73
Including:					
Workmen and office employees of sov-khozes and MTS†	..	1.5	3.2	3.2	3.62
Members of kolkhozes and artisans and craftsmen members of co-operatives	..	2.9	45.9	55.5	46.90
Individually operating peasants (excluding kulaks) and artisans and craftsmen not members of co-operatives	65.1	72.9	22.5	5.6	2.60
"Bourgeoisie" (landlords, large and small urban property owners, storekeepers and kulaks)	15.9	4.5	0.1	..	0.04
Kulaks only	12.3	3.7	0.09	..	..
Others (students, school children, pensioners, army, etc.)	2.3	2.4	3.4	4.2	0.73
Total	100	100	100	100	100

* Including members of family.
Bolshevik, 1939, Nos. 15, 16; 1940, No. 10.
Izvestia, April 29, 1940.

† Machine Tractor Stations.

the causes which give rise to the exploitation of man by man and the division of society into exploiters and exploited have been abolished forever."¹

Is this conclusion well founded and what is the real structure of present-day society in the U.S.S.R.?

First of all it must be noted that statistical data bearing on the social distribution of the population is unsatisfactory. Thus Table 34 contains data for 1937 based on the census of 1937, the very census which, six or seven months after the publication of its results, was officially declared "incorrectly taken, violating all fundamental rules governing the taking of a census." Moreover, the population groups in the table have been made up in violation of fundamental demographic requirements. Thus, workmen and office employees are

¹ V. Molotov, *Report to the 18th Conference of the Communist Party*, 1939, p. 5.

lumped together in one group, whereas it would be highly important to have these groups reported separately in order to be able to estimate correctly the trends of their respective growths.² In 1939, after the census, a separate tabulation of workers and of office employees, including members of their families, was published. The figures were as follows: workmen in urban and rural enterprises, 54.6 million persons = 32.2 per cent of the total population; office employees in city and country, 29.8 million persons = 17.5 per cent of the total population.³

In spite of the unsatisfactory character of the official data given in Table 34 (and unfortunately no other data is available), it still furnishes the basis for illustrating in approximate figures our analysis of the changes which have taken place in the social structure of the population.

What are these changes? In the first place, property-owning classes have been undoubtedly abolished. There are no landlords, no manufacturers, no bankers, no large merchants. Neither in the city nor in the country are any groups to be seen living by the exploitation of hired labor, or possessing concealed means of production or capital. Remnants of the possessing classes which began to reappear during the years of the NEP were completely wiped out during the First and Second Five-Year Plans. Individual survivors of these former propertied classes who refused to accept the new order or have not been assimilated by it find concealing shelter in crevices of the new regime and socially and physically are gradually dying out. In any case by now they do not constitute an element which could at a critical moment, say in wartime, exercise the slightest influence on the course of events.

By the end of the Second Five-Year Plan, petty traders dealing in a semilegal fashion in merchandise acquired by chance, or commercial middlemen serving some government institution constituted only 1 per cent of the total population and now, by the end of the third five-year period, these remnants of nonworking social groups have completely dis-

² *Ibid.*

³ *Izvestia*, April 29, 1940.

appeared. The children of these representatives of "former classes" are now employed in factories or in government institutions and since the promulgation of the decree of 1936, which provides that "children are not responsible for the social origin of their parents," they have been completely assimilated by the new order.

The social stratum embracing all employees has greatly increased both absolutely and relatively. Their proportion has more than doubled in the two five-year periods. In 1913 workmen and office employees constituted 16.7 per cent of the total population; in 1937, almost 35 per cent; in 1939, 49.7 per cent. The fact is emphasized by Soviet economists who rightly consider it the best demonstration of the industrialization which has taken place. As already stated, it is impossible to estimate the rate of increase of workers and office employees separately because of the absence of necessary data. According to the figures of 1939 the number of office employees of all kinds constituted more than 35 per cent of all employees. Judging by various indications, the number of office employees is growing faster than the number of workers.⁴ Nationalization of all phases of human activity and the organization of republics based on nationalities, each with its governmental and cultural institutions, have contributed to the great expansion of this social group.

During the years of the five-year plans the composition of the working class changed greatly. The number of old, skilled, class-conscious workers has decreased both absolutely and relatively. Millions of new workers have poured into the proletarian masses from the country and from the dispossessed ranks of the former upper and middle classes. The proportion of youth in the working population is greatly increased. Women have won a definite place in the proletarian ranks; they work in all branches of industry, even the most difficult and dangerous, receive the same compensation, and fulfill the same tasks as men.

Office employees, as already indicated, have greatly increased in number and, as the functions of government in-

⁴ *Labor in the U.S.S.R.*, p. 91. Gosplan, 1936. *Problems of Economics*, 1940, Nos. 11, 12, p. 120.

stitutions have expanded, their relative number in the country has increased. So far as his duties and rights are concerned, the average office employee is a government official; judging by his income, he is a poorly paid, hired laborer. There was a time in the early years of the Soviet regime when office employees were made up chiefly of members of the former bourgeoisie, they were viewed with suspicion by the government which treated them as second-rate proletarians, and their living conditions were far worse than those of the workers.

Lately their position has undergone a radical change. Government institutions have been filled by those "promoted" from the labor ranks, and by the sons and daughters of urban and rural workers; they have to a large extent become the support of the new regime, their legal status has been raised to that of the workers, and their financial status—as regards opportunity for promotion—has become even better than that of the workers.

A distinct process of differentiation in standards of living among workers and office employees has taken place. The piece rate and bonus system of compensation and the encouragement of "shock work" and Stakhanovism have created sharp distinctions between different groups of workers. Among employees in the same factory or institution or even in the same trade are to be found workers earning from 200 to 250 rubles a month and those earning several times that amount.

On the whole the standard of life of the Soviet worker and office employee has greatly improved in the last few years and continues to improve slowly, although so far it has not reached the level of the European worker (see Chapter IX, *Standards of Living in the U.S.S.R.*).

The old individual peasantry, after long years of resistance, after a period of social decline and revival, finally, by the time of the Second Five-Year Plan, virtually died out. Only about 5 per cent of all the peasants still practice private farming. Even of these many no longer depend on their agricultural work for a living; they supplement it by work at some craft, by driving a horse and wagon, and by hiring

out to the nearest sovkhos. The overwhelming mass of the peasantry lives and works under the conditions of present-day kolkhozes. True, the present-day kolkhozes are no Socialist institutions nor even free co-operative organizations of peasants; still the kolkhoz peasant works under conditions totally different from those on his own farm in former days. The member of the kolkhoz, gradually though slowly, is coming to realize through experience that improvement in his material welfare is closely bound up with an increase in profitableness of the kolkhoz as a whole. The kolkhoz is gradually developing in the peasant the habit of collective effort, a consciousness of a community of interest with his fellow kolkhoz members, and is broadening his economic and social outlook.

Still to a certain extent the mental make-up of the peasant, even the kolkhoz peasant, has remained that of a small property owner. The peasant is constantly thinking about the improvement of his own business. He has gradually become convinced that the large, mechanized, intensively cultivated farm of the kolkhoz secures a higher income from agriculture than was ever before possible. But he has become reconciled to the kolkhoz only since it was given a real opportunity to share among its members the surplus income which remains after it has discharged its obligations to the government, and since he was granted the right to have his own little private farmstead side by side with the kolkhoz. His interests have become divided between the kolkhoz, whose growing income is made possible by the improved methods and opportunities afforded by large-scale farming, and his private farmstead into which he pours all the pent-up energy of a private owner, a pioneer of intensive farming. The kolkhoz member of today is no longer a full-fledged owner or independent producer. The land is merely for the use of the kolkhoz but belongs to the state. The most important means of production, tractors, combines, threshing machines, flourmills, repair shops, horses, and a considerable part of the livestock no longer belong to the kolkhoz peasants. They all belong to the state, to institutions like the MTS,⁵

⁵ Machine Tractor Stations.

which perform the necessary labor in the kolkhoz for special fees in kind and money.

Numerically the peasantry has scarcely diminished, but socially it has changed greatly. In the village of today one misses the typical figure of the old village, that of the kulak, the rich peasant. The village has been swept clear of him by the shootings, arrests, and exile of the years 1929-1933. Nor are there poor peasants in the village of today or any considerable body of people who stand outside the productive process. On the whole, the standard of living of the kolkhoz peasantry is still low; it is lower than that of the well-to-do peasant of former times. Still, the kolkhoz member no longer suffers from chronic underfeeding, from constant worry about the morrow or the future of his children. The profitability of both the kolkhoz and his private farmstead are growing before his eyes. Among the peasants the process of differentiation is still more rapid and even sharper than that taking place in the city. Side by side with kolkhozes which have barely emerged from chronic deficits are kolkhozes whose wealth grows year by year either because they have been favored with more arable land and credit or because they are able to raise valuable industrial crops. The differentiation within the kolkhoz is also great. Incomes vary according to the number of labor days contributed by each member and the relative value of each labor day. Side by side with the peasant who barely earns his meager "subsistence minimum" there are the "shock workers," the notables, the brigadiers, and Stakhanovists who frequently earn no less than the wealthy peasants of the past.

Although the Soviet press is full of assertions that "sharp differences in the living standard of the toilers in town and country have been liquidated," living conditions in the village even now are far more primitive and inferior to those prevailing in the city, both culturally and in the matter of material comforts. But the old deep chasm which used to separate the extremes of riches and poverty has disappeared. New bonds connect the present-day village with the city, with technical progress, universities, theaters, newspapers, with all cultural life. Village representatives and village

youth often go to the city on kolkhoz business, to attend meetings, party offices, to visit hospitals and theaters. Children of kolkhoz members, after graduating from the seven- or ten-year village school, go to town to continue their education. There are quite a few village families who have a member studying at the university or already employed as an engineer, an agricultural expert, physician or teacher. Sizable groups of local intelligentsia have appeared in the villages and there has been a great increase in the number of men with technical training—tractor operators, machinists, mechanics, agricultural experts, stock breeders, veterinarians, and others.

The intelligentsia, in the old sense of the word, no longer exists. There are in the U.S.S.R. no people engaged in free professions or working for independent public organizations. Physicians, lawyers, journalists, teachers, even writers and leaders of trade-unions either work at the order or assignment of government bodies or have positions in government bureaus, that is, they are in a sense government officials.

The old ruling class of government officials has been torn up root and branch. Their place under the Soviet regime, as indicated before, has been taken by a new, if more numerous, Soviet bureaucracy: military, administrative, technical, managerial, and party officialdom. At the 18th Conference of the Communist party held in 1939, Molotov produced an estimate of the number of Soviet administrators and of Soviet intelligentsia. He estimated that the number of those engaged in Soviet administration amounted to 1½ million people and the Soviet intelligentsia numbered 9½ million. Including the members of their families they constitute 14 per cent of the total population whose importance is growing year by year.⁶ These government officials and employees are drawn largely from age groups which have been brought up under the Soviet regime. They are children of office employees, peasants, and workers. The great bulk of government employees barely make both ends meet and their standard of living differs but little from that of factory workers. The top ranks of this class, the highest government

⁶ V. Molotov, *op. cit.*, pp. 44-45.

officials, directors, chairmen of trusts and plant managers, engineers, economist-planners, architects, writers, journalists, professors, party leaders, members of commissariats, heads of trade-unions, numbering in all from 800,000 to a million, occupy the most privileged positions in the U.S.S.R. Their standard of life is far above the average level of other workers. The custom of awarding great prizes to some of the Stakhanovists, engineers, writers, ranging from 50,000 to 100,000 rubles,⁷ the presentation of automobiles and country homes as prizes, annual salaries from 20,000 to 30,000 rubles, have created enormous differences between the standard of living of the rank-and-file workman or office employee and the higher government dignitary. But more important than material circumstances is the psychological effect produced on wide circles of the population by the development anew of those social inequalities which were supposed to have been abolished. Lately the highest members of the bureaucracy have appeared not only as executors of government laws and decrees, but as the embodiment of governmental power. Their whole existence has been bound up with the Soviet regime, their privileged position was created by the new regime while it was growing in power, and among them the desire has grown to end the Revolution—a yearning for order and peace.

This group cannot, of course, be regarded as a definitely formed class. No clear lines of demarcation separate it from other classes; as yet it has no distinct class aspirations, no class psychology, and above all, no definite status in the productive process.

Yet there is a definite trend among the higher-ups of the Soviet bureaucracy to segregate themselves into a separate social group. If, as a result of military defeat or strong in-

⁷ To commemorate the sixtieth birthday anniversary of Joseph Stalin, the Soviet of the People's Commissars (the Cabinet) established annual "Stalin Prizes" to be awarded for outstanding works in the fields of science, literature, art, engineering and military science.

Ten prizes of 100,000 rubles each and ten prizes of 50,000 rubles each were awarded in March, 1941, to Soviet writers and poets, including A. N. Tolstoy, M. Solokhov, N. Aseyev, Ignatius Grabar, and others. See *Soviet Art*, March 16, 1941.

ternal convulsions, conditions were created in the U.S.S.R. favorable to the restoration of private property and the creation of classes aiming to seize possession of the means of production, these reviving classes would be recruited or would crystallize not out of the ranks of the former possessing classes—their day is over—but precisely from among this upper crust of Soviet and party bureaucrats. Soviet bureaucracy is not a class but it represents a materially privileged social group. It is the embryo of a class which, under favorable conditions, could develop into one. History shows that new possessing classes have often sprung from the ranks of the government bureaucracy or the priests of a cult, or from the ranks of the military, and that the crystallization of their status in the new economic organism took place considerably later.

This social group has been steadily growing in numbers, has appropriated to itself an ever-growing share of the national income, and has a growing consciousness of being the bearer of governmental power in the land, but now, at the beginning of the second World War it had not yet assumed social form or sensed its "historic mission," and had not matured sufficiently to formulate its social aspirations.

This brief analysis of the chief groups of the population shows that toward the end of the third five-year period the social stratification is still unstable and has not assumed a crystallized form. At any rate, it would be a mistake to assume that class distinctions have been completely liquidated and that all Russia consists, as Stalin maintains, of only "two types of workers, the workers of the city and the workers of the country." The actual situation is far more complex. The formation and differentiation of social groups, in both town and country, have manifestly not been completed. If the period of stabilization of the Soviet regime had continued under conditions of peace but under the same dictatorial regime, the process of the isolation of the upper crust of the bureaucracy and its psychological and social degeneration would undoubtedly have gone on.

The sudden outbreak of war upset all prospects and complicated all predictions. The outcome of the war will affect

not only the character of the social structure of the U.S.S.R. but also the future of Russia and her political and economic order. But even now it may be definitely stated that the war has interrupted the process of psychological and social transformation of certain social groups.

The war has set at stake the very existence of Soviet Russia. It has stifled all those yearnings for a quiet, peaceful existence which inspired certain ruling groups, and has awakened all the revolutionary forces which lay dormant in the masses. It calls for the sacrifice of life itself by all—high officials, bureaucrats, office workers, workmen, peasants. It has shown with great clearness that there are no prospects of "prosperity, order, and peace" for the U.S.S.R. in the near future and that the whole future of the country, the secret of its power of resistance lies in the ceaseless struggle for new, socially progressive forms of life. The war has shown that the process of degeneration among elements born of the Revolution has not yet rotted the basic social fabric of the country, and that the nation in its great majority stands ready to defend the new social order created by the Revolution.

The change in the attitude of the Soviet government toward the various social groups of the country which manifested itself at the time of the economic revival is going on now during the war. The efforts of the government to take into account and to reconcile the interests of the most important groups—the workers, peasants, and white-collar people—is manifested even more clearly in its conscious effort to become the government of the whole nation.

CHAPTER ELEVEN

STATE PLANNING OF THE NATIONAL ECONOMY

IN CHAPTER I we attempted to make clear the basic ideas and the method of planning in the U.S.S.R. In this chapter an attempt will be made to analyze the results of Soviet planning.

After twenty years of planning the following questions should be answered on the basis of actual experience: Is the economy of the U.S.S.R. determined by the plan? Have the laws and the regulating factors of the old market economy died out? Has the U.S.S.R. succeeded in creating a planned economic system?

The planning system after numerous reorganizations has finally assumed the following form of organization. The highest planning organ is the Gosplan, under whose jurisdiction are the planning bodies of the constituent republics, local governments, and separate industries. The Gosplan, under instructions of the Central Committee of the Communist party, issues the basic directions governing the preparation of the plan. The local and industrial planning boards prepare drafts of plans for enterprises, industries, and regions, based on their maximum potentialities. The Gosplan, to which all these drafts of plans are sent, prepares a general plan for the national economy. After the plan has been discussed and approved by the highest government and party institutions, the Gosplan promulgates the plans, and they are binding on the Union, the constituent republics, and the local governments. These plans cover the national

economy as a whole, its branches and individual enterprises.¹

The potentialities of a planned organization of economy in the U.S.S.R. in late years have been tremendous. Private economy has been abolished. All branches of economy, in both town and country, have been nationalized. Both political and economic administrations have been centralized. Profit has ceased to be a factor determining economic activity and, in principle, has given place to another criterion: the public interest.

Unlike capitalist countries, there is no opposition on the part of social groups to measures opposed to their interests, there is no struggle between opposing private economic interests. "Nationalistic separatism" and local or bureaucratic opposition were broken down in the first years of planning.

No matter what the national government may decide, it meets with the minimum conceivable organized resistance in the realization of its plans.

In no other country is the government in a position to realize its economic plans as it has been in Russia in recent years. This circumstance lends the government its extraordinary power, its exceptional stability; makes it possible for it to survive shocks which, to any other government, would be fatal; enables it, on encountering failure on one front, to entrench itself on others.

In the period of War Communism and during the first years of the NEP, Soviet plans were merely aspirations far removed from reality. Elemental social and economic forces made short work of all the plans. In those years the conviction gained ground that what "regulated" Soviet economy was not so much the Gosplan as the blind force of peasant resistance. But during the years of the five-year plans the government gradually gained such mastery over the economic apparatus that at present it actively and authoritatively determines the direction and the tempo of the economic life of the country. Not all aims are attained in full, sometimes

¹ The Gosplan has been reorganized several times in the course of the twenty years of its existence. At present the Gosplan functions according to the statutes and organization charts adopted on April 13, 1939, and in July, 1940. (*Planned Economy*, 1939, No. 5, and 1940, No. 7.)

the pressure of the government brings great hardship on the population, but the decisive and determining effect of the plans and the decisions of the government on the entire economic life of the country is indisputable. Not many years ago, if the government proposed some measure which was in conflict with the trend of economic development, life upset those plans. Now, when the Soviet government fails to break down the opposition of economic or social forces by a frontal attack, it begins to maneuver and contrive, and what it does not succeed in getting in one attempt it attains, at no matter what cost, in two or three attacks.

The government also has greater control over the apparatus governing and guiding economy than it had before. Instructions issuing from the central organizations are, in the majority of cases, carried out unquestioningly, and government bodies or their agents are punished severely for negligence or disobedience.

Thanks to that, the most difficult Soviet plans are carried out in all their essential features and to a much greater extent than before.

The plans are of such magnitude that, if they are realized to the extent of even 70 or 80 per cent, they produce enormous changes in the entire national economy. As against the total absence of planning of the typical capitalist economy, an economy that functions even 70 per cent according to plan manifests so high a degree of organization and system as to bring into bold relief its contrast to the economies of other lands.

The plan has endowed the Soviet economy with distinctly advantageous traits. As will be seen later, it would be a mistake to assume that factors operating outside the realm of conscious control have completely disappeared from Soviet economy, but they have been greatly weakened, both qualitatively and quantitatively.

The crises of overproduction so typical of the capitalist world do not exist in the Soviet economy; while lack of co-ordination between production and the needs of the population still exists, it is of a totally different character. Thanks to a planned state economy, the U.S.S.R. has succeeded in

abolishing unemployment. The excess of hands in the country and lack of workmen in the city are new, still unsolved contrasts of Soviet life, but these evils cannot be compared to the terrible effects of unemployment on the entire social, economic, and political life of all countries in the last few decades.

Soviet economy has shown that it possesses a most powerful means for the realization of its economic and social plans in the rapid accumulation of national savings and their prompt investment in definite branches of the national economy in full accord with the objects of its plans. In capitalist economy the accumulation of savings and the financing of definite industries and, therefore, the realization of definite plans of economic development form a complex, slow operation, subject to checks through organized opposition by interested groups or to upsets caused by elemental forces. In the Soviet economy the development of this or that branch of industry depends directly on a government decision as to capital investment.

In relations between different state enterprises the Soviet government has been successful in establishing a balance between supply and demand. The problem of establishing a balance between the market supply of articles of prime necessity and the purchasing power of the people is still unsolved, but the cause of failure in this respect lies not in the weakness of planning methods, but in the economic policy of the government.

The Soviet planning system has achieved great success in the regulation of imports and exports, and the stabilization of the ruble in the home market.

It has been considerably less successful in its efforts to regulate prices of articles of mass consumption, especially of agricultural products. It was the desire of the Soviet government that prices of articles of mass consumption be determined not by the market law of supply and demand, but by the government. But the acute goods famine creates a condition where side by side with state commerce at fixed prices there always exist the semilegal market for manufactured products and the legal market for food prod-

ucts, in which prices are determined by the old law of supply and demand. More than that, at critical times this private market upsets the fixed prices of the government market, forcing it to raise its prices to agree with those of the private market. The unsteadiness of prices in the private market reduces the effectiveness of state planning of wages and subjects real wages to chronic fluctuations. There is a constant conflict between the state and the market, between blind elemental forces and the plan, which continues to this day. Nevertheless, while the elemental forces have not been entirely overcome, their role has greatly diminished, and there is no economic field in which the economic policy of the state does not play a decisive part. Soviet economy is more and more taking on the character of a regulated, directed economy.

This fact prompts Soviet economists and some of the economists outside the U.S.S.R. to define the Soviet economy as a planned economic system. However, notwithstanding the constantly growing elements of a planned economy and in spite of the striking examples of "directed operation," I do not believe the U.S.S.R. can qualify as a state with a system of planned economy. Some elements of planning are present but as yet there is no system; rather, one is in the process of being planned.

Just as the capitalist system has its characteristic traits and its inherent laws, so does the system of planned economy constitute a system with its own characteristics. In a planned economy all elements are interdependent. Any deviation from plan on the part of some of the elements upsets the functioning of the entire economic system. The various elements are determined in advance in the plan, and for the whole economy to function normally, the elements must develop in a given period of time only in the direction of the goal set by the plan and within the limits of its program. The size of the national income determines the volume of savings; the volume of investments determines the extent of the industrial expansion; the volume of agricultural production for the market determines the volume of food supplies for the city; the volume of the steel output sets

the limits for the output of machinery; the rise in wages determines the tempo of the rise in the welfare of the working population, and so forth.

If that is what is meant by a system of planned economy—and that is the sense in which the theoreticians of planned economy, including the Marxists, understood it—then the Soviet economy is not a planned economy. The First Five-Year Plan was based on the assumption that agriculture would be predominantly carried on under private peasant ownership and that relations between town and country would be based on market exchange. The plans for all branches of economy were worked out accordingly. By the end of the very first year of that plan it became clear that the peasants, dissatisfied with the compensation for their toil as fixed by the government, were not delivering their products freely to the state. The Soviet government then decided to “collectivize” the peasantry forcibly. By the end of the First Five-Year Plan 70 per cent of all tilled land had been collectivized and the bulk of the peasantry deprived of personal ownership of their agricultural implements, livestock, and land. All relations between town and country assumed an aspect unforeseen by the plan.

In the meantime the Five-Year Plan remained in force and was completed in four years. Under such conditions can the Soviet plans be regarded as plans of national economy, rather than plans for separate industries or sectors of economy? Is it possible to consider Soviet economy a planned economy?

But perhaps this was true only of the first experiment with a long-range plan? No, the same thing occurred during the years of the Second and Third Five-Year Plans. More than that, by the time of the Third Five-Year Plan the Gosplan had been purged of economists who stood for a planning system.

Can the U.S.S.R. be regarded as having a planned economy in the years of the Third Five-Year Plan, when the new plants, built under great strain, could not function properly for lack of a sufficient number of engineers, of skilled as well as unskilled workers, so that it was necessary to resort

to "compulsory mobilization of minors" to secure enough labor for these plants, a measure not only unforeseen in the plan, but in conflict with it in many of its important features?

Soviet economy is a state-operated economy, but it is not an economy operated under a planning system, with co-ordinated constituent parts, with a harmonious development free from crises.

Just as the productive functioning of an industrial plant depends not on single record-breaking feats or "storming," but on an even, exact, co-ordinated round of work, so does the entire national economy, to deserve being called planned, require not "clever operating directions which in twenty-four hours change all previous plans," but a well-worked-out planned system of economy. The reasons Soviet economy, despite twenty years of planning, has not grown into a system of planned economy lie in objective factors which place distinct limitations on forecasting and planning.

Frequently, Soviet plans, in setting their objectives and the rate at which they are to be attained, disregard actual possibilities. The power of the government is so great that it can physically break down any resistance; it can throw the entire power of the state into this or that sector of the national economy and thereby secure the carrying out of its orders, but it appears to be unable to paralyze "the revolt of the trampled-down objective factors" or to establish the normal, smooth functioning of the nation's economy.

There is constant conflict between plans and the absence of the objective prerequisites for their fulfillment. Outwardly the government always emerges the victor, but that victory by no means paves the way to the shaping of an organized, planned economy, which requires a harmonious knitting together of all its separate parts into a unified economic system. All that is characteristic of a system of planned economy—new exact economic factors of production, new incentives for labor, new principles of productivity, new criteria for the profitableness of an enterprise, new causes and effects—all is absent so far in any degree approaching a definite recognition in Soviet planning. And what is especially im-

portant, the separate elements of a planned economy, growing in number from year to year, do not tend to strengthen the planning system, but are determined merely by the growing power of the state through the improved functioning of the governing apparatus.

Many illustrations could be cited. We shall confine ourselves to a few.

The Soviet government decided to "liquidate" social classes. At the cost of terrific strain and the wrecking of millions of lives, it was outwardly successful. But it failed to solve the problem of the elimination of classes, for at present new processes of social stratification have started in the womb of the Soviet social organism, and the embryos of new classes are being formed. The government decided to abolish private peasant farming and succeeded in driving 96 per cent of the entire peasantry into the *kolkhozes*. But it could not change the mental attitude or the aspirations of the peasant. The incentives of private ownership proved so vital that they had to be taken into account in the shaping of the entire *kolkhoz* economy. The Soviet government attempted to eliminate the regulating factors which function in a system of private economy, such as the market factors of supply and demand, prices, credit, profit. It has in fact reduced the importance of these factors, but the plan has not become the regulator of the Soviet economy. It could not perform this function well since it had failed to create a new stable economic order, a new system with its own inherent laws. The process of carrying out the plan has been accompanied by constant breaks and lack of balance. Above all, the government itself kept tampering with the plan, now changing all the tempos of the plan and demanding its fulfillment in three or four years instead of five, then changing the plan itself by issuing new orders, thereby itself disorganizing the planned economy. The plans are fulfilled not through the operation of new laws inherent in a planned economy, but through the insistence and driving force of the government.

The Soviet economy is, of course, a managed economy, not a free, self-operating one. It is like a war economy,

directed, regulated, modified by orders of a vigilant General Staff. A war economy can be effective, it may not let a single element escape its control, but that does not make it a system of planned economy with its own strict inner laws and system.

Long before the outbreak of the present war, the Soviet economy was governed not so much by the five-year plans as by the stern, maneuvering orders of the Political Bureau of the Communist party. The strength of a planned economy is in its system and foresight. The strength of the Soviet economy lies in its centralized management and the vigilance of the government, which resorts to shock methods to overcome innumerable crises. The Soviet government abolished "the anarchy of production and distribution" of private economy, not by substituting for it a system of planned economy from which disparities and chance would be excluded. Instead, it contends with "anarchy" from case to case, creating by its methods new conflicts and repeatedly playing the part of the tireless fireman and rescuer from recurring economic catastrophes. Plans are abrogated by special orders, which in turn are repealed by "extra-special orders."

The ability to foresee has turned out not to be inherent in the Soviet economy. Many basic problems which arose before the Soviet government were not anticipated by its plans. The first plan did not foresee the introduction of the card-rationing system, nor the elimination of unemployment, nor the inflationary "dying out of money," nor finally the collectivization of agriculture.

The Second Five-Year Plan did not foresee the creation of private peasant homesteads, nor the elimination of rationing, nor the building of the whole system of government finance on the basis of revenue from the "price mechanism."

Finally, the Third Five-Year Plan is built not only on the premise of peaceful economic rivalry with the United States, but counting on a "considerable rise in the material well-being of the toilers." It did not foresee the part to be played by the Stakhanov movement nor the abolition of the seven-

hour labor day, nor the new methods of replenishing the labor force.

The Soviet government administers the huge economy of the nation with ever-increasing efficiency. There is no doubt of that. But, just as the English saying goes that the British Parliament can do everything but even the Parliament cannot turn woman into man, so the Soviet government can do a great deal but even it cannot entirely eliminate the working of fundamental political, economic, and social laws: they come back to life in distorted, often unexpected forms, and have to be reckoned with. Political parties have been liquidated; but different party demands reflecting the interests of different social groups have begun to make themselves heard within the Communist party.

Private trading has been abolished. But commodity scarcity has become chronic even in the presence of commodities, because of the failure of the state trading agencies to function properly.

The finest plants have been built but, only too frequently, it has proved impossible to secure their normal operation.

It would seem that the private market had been abolished and that prices had been made subject to the control of the planning institutions; yet in the first weeks following the outbreak of the present war, prices rose irresistibly in private markets, and goods began to disappear from the government stores. The laws of the market once more hold sway over prices of articles of mass consumption.

It was possible to build factories and establish kolkhozes by high-pressure methods, but it proved impossible either to change the peasants' psychology or to train new workers on the gallop, by "blitzkrieg" methods.

But what most vividly shows up the character of the planning system is the lopsided fulfillment of all three five-year plans. We will not, at present, go into the question of whether the problem of satisfying the needs of the workers was properly solved in the plans. We will assume that, for the sake of rapid industrialization and in the interests of defense, the bulk of investment had to go toward the production of metal and guns and a minimum toward the pro-

duction of clothing and butter. But the plans for the expansion of the production of clothing and butter should have been fulfilled, in the interests of the whole national economy, at least within the limits set by the five-year plans. It is sufficient to acquaint oneself with any one of the three five-year plans to see that the necessity of raising the standard of living of the workers was determined by all the needs of the national economy, that the plan for production, the money for consumption, the rates of wages, the price level, the syphoning of peasants from the country to the factories, the purchasing power of the ruble, the satisfying of the peasants' demand for manufactured goods were all closely tied up with one another. And yet all three five-year plans have been fulfilled according to one simple pattern. The production of the means of production has been fulfilled or exceeded, the production of goods needed by the population has proved to be considerably lower than even the meager quotas fixed by the plans, and the standard of living of the toiling masses has been raised but slightly, far from the "doubling" or "trebling" promised by the Second and Third Five-Year Plans.

Can plans based on the idea of co-ordination between the volume of production and that of consumption be considered fulfilled when only the plan for production is carried out, and that only in the field of the means of production? And can an economy which carries out its plans so one-sidedly be regarded as a planned economy?

The Soviet economy is a managed economy, one with elements of planning, but it is not a planned economy, not the planned economic system of which the workers of the world have dreamt, toward which the scientific thought of economists and sociologists turns.

Nor are there grounds for believing that the present character of Soviet plans is merely a case of "growing pains," that the plans will gradually develop into a planned system.

There are no grounds for such a hope because, since the "liquidation" of the old Gosplan, the very theory of planning in the U.S.S.R. denies the necessity of a planned system of economy, advocating in its stead the practically successful

"operative plans." The 18th Conference of the Communist party categorically laid down the rule that the most important thing about plans is their flexibility, "the possibility they afford for the Central Committee of the Communist party to change them in twenty-four hours" and to check up on the manner in which the economic instructions of the party are followed.

In order that the Soviet economy might become a planned economy, that the elements of planning should develop in the direction of a planning system, a radical change is required in the relations of the government to the national economy. It would be necessary to eliminate the contradictions between the objectives of the plans and actual possibilities, between the burdens imposed by the plans and the needs of the population.

In this connection it is interesting to note the changes in the background of the conditions under which the five-year plans were worked out.

According to the original idea, the working out of the plan was to take place in an atmosphere of creative participation by the working masses and local public organizations. As a matter of fact, while the First Five-Year Plan was being worked out its economic plans were discussed at all meetings in the remotest corners of the land. At that time faith in the creative powers of the plan was enormous. Flaming enthusiasm followed every success in construction. Many believed that upon fulfillment of the First Five-Year Plan "everybody would fly about in airplanes, and gold would be used only to build public lavatories." The broad masses of the workers sincerely believed that at the end of the five-year plan life would become better and easier.

The bitter experience of a hard life and unfulfilled hopes dashed the burning enthusiasm. But what is more important, the very discussion of the Second and, later, the Third Five-Year Plan took place in a bureaucratic and departmental setting. The most burning issues, the most urgent problems were discussed only at meetings of specialists without participation by the broad masses whose interests were at stake.

By the end of the Third Five-Year Plan the failure to fulfill the hopes of the people, and the red tape of the government bureaus, caused a falling off of interest on the part of the workers in the work of planning, instead of "turning them into conscious participants in social production" as the first authors of the First Five-Year Plan had intended.

While a planned system has not developed, the role of such planning as there is in the Soviet economy is enormous. Through nationalization and planning, the U.S.S.R. succeeded, in the shortest possible time, in pulling the country out of the ruin caused by the first World War and the Civil War, carrying out the task of rapid industrialization, radically reorganizing agricultural economy, creating war industries, and thereby securing the country's capacity for defense.

The immense advantages of a plan in the national economy of a country have manifested themselves in the Soviet. If planning, done in so incomplete and imperfect a fashion, has made it possible for Russia to travel the road, in two decades, from a backward, half-ruined country to a highly industrialized nation, what tremendous potentialities must lie in a consistent, planned system of economy, carried out in a highly industrialized and highly cultured country, after the adoption of a Socialist system in place of the system of private economy.²

² I have deliberately refrained from discussing the interesting problem of elements of planning and a planned system in a capitalist economy, and the possibilities and limits of planning in a capitalist economy, as it lies outside the scope of this book. However, I believe that an acquaintance with the problems and practice of planning in the U.S.S.R. would contribute much to an understanding of the potentialities of planning in a capitalist economy.

CHAPTER TWELVE

THE SOVIET SOCIAL ORDER AND TRENDS IN ITS DEVELOPMENT

AFTER a quarter of a century of the existence of the Soviet Union, and the long experience gained in carrying out a policy of planning and socialization, the attempt is worth making to clarify the nature of the economic and social character of the Soviet order. What interests us is not its name nor its epithet, not dogmatic disputes, but the real essence of that order and the trends of its development.

Those who direct the policy of the U.S.S.R. maintain that during the years the Soviet government has ruled, a Socialist system has in the main been established, and that the next task after the end of the Third Five-Year Plan will be the transition from the Socialist to the Communist form of government, i.e., from an order in which "each is paid according to his work" to an order in which "each receives according to his needs."

• Let us avoid controversial distinctions between Socialism and Communism and take up Stalin and Molotov's assertions that a Socialist system of economy has been built up in the U.S.S.R.

We would consider it unsound in method to take the Soviet economy in its static state, say in the year 1941, and on that basis pronounce judgment as to whether or not perfected forms of Socialism have been created. Any radical reorganization of society, and still more a transformation to Socialism, is the result of a prolonged and complex process. A Socialist society is not born in a finished state

even though its prerequisites are created within the capitalist society. For this reason it is only natural that in the early stages of a Socialist society there should be not a few survivals from the capitalist order, just as in a ripe stage of capitalism are to be found many elements destined to become components of its successor, Socialism.

Therefore, in order to determine the character of the Soviet order it is not enough to establish the existence of separate elements or individual prerequisites, but it is necessary to determine the direction in which Soviet society is developing, and its fundamental, most characteristic traits. This task is not easy and a sober and correct answer is possible only by disregarding superficial, transient phenomena.

It is necessary to make a study of the state and trends of development of all the factors in the aggregate. In the preceding chapters an evaluation was essayed of the various elements of the Soviet order. The present chapter is devoted to an analysis of the social order as a whole, and by discovering the basic trends of its development to arrive at a general conclusion.

Many economists and journalists deny the very possibility of building up Socialism in the U.S.S.R. because it is so backward in its economic and cultural development. As evidence they generally cite statistics on the slight extent of Russia's development in pre-Soviet times.

The difficulties resulting from the fact that the attempt to build Socialism took place in a backward country are not denied even by the Communists themselves.

"For a long time there was a contradiction in the U.S.S.R. between the advanced Socialist industrial relations and the comparatively low level of development of its productive forces."¹

But the Soviet period has already lasted for twenty-five years fraught with the most tremendous social and economic changes—a length of time that could be decisive even for lands developing under an evolutionary process, and all the more for Russia in a period of revolution.

Can one depend on arguments and analyses which were

¹ *Problems of Economics*, Academy of Science, 1940, Nos. 11, 12, p. 52.

valid twenty-five years ago? We must seek the answer to the question of whether there are objective conditions for the realization of Socialism in the U.S.S.R., in the economics, in the social relations, and political and cultural conditions of Soviet Russia of today.

Let us generalize the conclusions at which we arrived after analyzing separate aspects of Soviet life in the foregoing chapters, and ascertain the character of the order as a whole.

A radical economic reconstruction of the country has taken place. From a predominantly agricultural nation Russia has changed to a combined industrial and agricultural economy. At present Russia is in the foremost ranks of the industrial countries of the world, and the quality of its equipment is the most modern. All her large-scale industries, those of middle size, and an overwhelming majority of even the smallest plants belong to or are operated by the government. Production of the means of production has greatly increased, new industries have been built, new industrial regions have been created. Russia is one of the few countries whose industries do not depend on foreign sources of all kinds of raw materials and fuel. Its dependence on foreign imports has been considerably reduced. That process of concentration of industry which is characteristic of capitalist countries, and which was taking place in pre-Soviet Russia has practically reached the limits in the U.S.S.R. today. A greater rate of growth of industry than of agriculture has increased the relative importance of industrial production in the national economy. In recent years the productivity of labor has begun to rise, gradually approaching the greater productivity of Germany, England, and the United States.

The structure and technical level of the agricultural economy have changed radically. Instead of the millions of scattered tiny holdings, large-scale economic units have been created in the form of kolkhozes. Instead of the old primitive ways of farming, new modern methods of agriculture have been introduced everywhere. Large-scale farming, mechanization, scientific agricultural methods, and billions invested

in agricultural machinery and equipment have created a favorable economic foundation for further rapid growth in agricultural production. The government owns the principal means of agricultural production, tractors, combines, threshers, and other machinery. Government ownership of all the means of production both in the city and in the country has enormously increased the importance of the government. The elements of a plan increase from year to year and government management and regulation is becoming more and more the decisive factor in the national economy.

Foreign and domestic trade is entirely in the hands of the government. Although the kolkhozes and the peasants have been granted the right to sell their surplus in the open market, nevertheless all trade, including that of the kolkhoz, is under government control.

The social structure of the population has changed no less radically during these years. The old possessing classes have been destroyed. The working class has grown in numbers and its relative importance in the nation has increased considerably. Office workers and Soviet intellectuals have greatly increased in numbers and in influence within the government administration. The great bulk of the peasantry works in the kolkhozes, their position a cross between day-laborers and farmers. Independent peasants are steadily declining in numbers and clearly represent a dying social group.

Each of these principal groups of workers—industrial workers, peasants and the white-collar class—is divided into groups of varying degrees of material well-being depending on the size of their wages, rewards, and income. This process of “stratification” is continually spreading and deepening from year to year. The general improvement in the physical and cultural living conditions which became marked in the last few years was interrupted in 1941 by the war with Germany.

Let us turn to an analysis of political, cultural, national, and psychological factors. The part played by these factors is always great. Of special importance is the political factor—the government. It would be a particularly serious mistake to underrate the role of the government, its influence and

active interference in this present era of dictatorships. In spite of their great importance, economic factors are not the sole explanation of many important phenomena.

It is precisely in the role of these political, cultural, national, and other factors that the explanation is to be found for the fact that in many countries, in which all the economic and social factors for the building of Socialism seem to be present, no radical change takes place in the economic order either by revolution or by evolutionary means. For example, it is impossible, by economic factors alone, to account for the fact that until lately there has not been a mass Socialist workers' movement in England. Can the collapse of the Social Democratic movement in Germany, in 1933, and the triumph of National Socialism be explained merely by economics? Historical facts can be understood only when an analysis includes, in addition to the important economic and social factors, the complex tangle of political, national, and psychological factors. We propose to consider the part played by those factors in Russia.

It is interesting to note that the founders of Marxism did not attempt to simplify their interpretation of historical processes. Engels said:

In accordance with the materialistic interpretation of historical processes, the determining factors are, in the last analysis, production of goods and reproduction of life. Neither Marx nor I has ever claimed anything further. If anyone should distort this statement to mean that the economic factor is the only determining factor, then that assertion becomes a meaningless, abstract, senseless phrase. . . . We ourselves make our history but we do so under well-defined premises and conditions. Among them economic conditions are in the end the determining ones. But political conditions, etc., even traditions that exist in people's minds, also play a certain part, though not the determining one. . . . Marx and I are partly to blame for the fact that young Marxists have sometimes ascribed a greater importance to the economic aspect than they should. In answering our opponents, we had to emphasize the main principle which they denied, and there was not always sufficient time, space, or occasion to do justice to the other factors which shared in the interaction. But whenever it was a matter of describing some particular historical

period, i.e., a case of practical application, the situation changed and there could be no misconception in such a case.²

It is clear from this passage from a letter of Friedrich Engels to I. Block what great importance the founders of Marxism ascribed to political, cultural, and other factors in the study of historical events.

The importance of these secondary factors is especially great in contemporary Russia, since what took place there was not a process of organic growth of productive forces with a corresponding growth and adjustment to new forms in the realms of politics, spiritual life, and customs, but a volitional process of forced economic growth, a process which violated all the established customary relations among the various factors of human society.

Economics, by the will of the dictatorship, made a jump of fifty years, social relationships were roughly driven into the framework of the plan of socialization, the policy was carried out by the sternest decrees of the dictatorship, but it proved impossible to force the other factors to move solely in the direction prescribed by the dictatorship.

What, then, is the state of the psychology, culture, and politics of present-day Russia?

The Revolution, socialization, and dictatorship produced tremendous, though frequently conflicting, effects on the psychology of the broad masses of the population. The collapse of the age-old monarchy, the destruction of entire classes, the Civil War, foreign intervention, the zigzags of Soviet government policy, the radical change in the fundamental economic and political conditions, brought to the population a realization of the instability of political and economic forms and a consciousness of continued revolution. The absence of private capitalist classes, of legalized speculative gains, of class or social barriers, the abolition of national inequalities, the widespread opportunities for youth to advance itself, have been accepted by the majority of the people as the greatest of blessings. More than three-fourths of the people of active age have been brought

² Letter of Friedrich Engels to I. Block, in *Selected Correspondence of Karl Marx and Friedrich Engels* (In Russian), pp. 303-304. Moscow, 1923.

up under the Soviet order. It is not alone the tremendous advantage of an economy without private owners with their private interests, but inertia and tradition that now work for the Soviet order rather than against it.

Naturally, material privations and political oppression by the dictatorship have had a great influence on the psychology of the population. First came the severe want during the years of the Civil War, a brief respite during the years of the NEP, then the heavy sacrifices in the name of the Five-Year Plan, and the cruelly vain hopes for a substantial improvement in personal life; the low standard of living among the masses, and renewed material inequalities among the various strata and groups of the population; and in addition the endless political terror, dismissals, exile, and executions.

The working class because of its social position is inclined toward Socialism and is hostile to any attempts at the restoration of capitalism, but the material privations and the absence of political freedom have created, even among the workers, an apprehensiveness toward Bolshevik "tempos" and the coercive methods of socialization.

Still greater alarm and distrust of socialization has animated the peasants who, in the years of the Soviet regime, have lived through the horrors of forcible food collection, "liquidation" of kulaks, forcible collectivization, famine, and the death of millions. The peasants long for the chance to enjoy at last those blessings which the Revolution promised them: the abolition of landlords, class inequalities, the burden of debts, chronic want. But Socialism to them is vague and menacing. Too often Socialism has manifested itself to the peasants in the taking away of the products of their toil and has merged in their minds with the abolition of the peasants' right to private farming. They greeted with satisfaction every measure of the government, even of a Socialist character, directed toward the improvement of agriculture which did not encroach on their rights as peasants. They were hostile to all attempts by the government to turn them into hired laborers. Free kolkhozes and the restoration to the kolkhozes and individual peasants of

the means of production and the right of the peasants to dispose of the products of their toil—these are the indispensable conditions for the restoration of the peasants' good will toward the Revolution, the awakening of an active interest in the social economy on the part of the new generations of peasants brought up in the kolkhozes, and the creating among the rest of the peasants of an attitude at least of "neutrality" toward further government measures for the realization of Socialism.

The psychology of the numerous and influential class of Soviet office workers and Soviet intellectuals is something of a riddle. Its upper crust in recent years has undergone a rapid transformation socially and has come to dream of order and peace and of the stabilization of economic and social relations. Since further advances in the direction of Socialism would entail new disturbances of the existing order, the heads and bureaucrats of the Soviet order are becoming more and more cool toward it.

However, the great mass of white-collar workers in no way differ in their mode of living or their aspirations from the other workers. As a body they have no definite ideas, no leaders great or small, they are not striving for any social or political goals.

In the years of the Revolution an enormous advance in the general cultural level of the population took place. The most active driving forces were, of course, the events of the Revolution itself. Life sharply raised the most complex problems and demanded intensive mental effort in seeking answers to them. The Revolution awakened to life the remotest settlements and the most backward nationalities, drawing them into the common life and experience of the nation. The policy of the government, despite periods of harmful academic experimentation, was mainly directed toward a rapid improvement of the cultural level of the people. Illiteracy has been almost entirely done away with.⁸ The number of schools has increased both in the city and

⁸ Literacy among the population above the age of nine in Czarist Russia amounted to 24 per cent, in 1926, 51.1 per cent, while in 1939 it reached 81.2 per cent of the whole population. *Bolshevik*, 1940, No. 10.

the country. The number of institutions of learning, both general and specialized, has likewise increased. Small, seemingly moribund nationalities have been awakened to a new spiritual life. The need for trained personnel in factories and government institutions has caused the Soviet government particularly to encourage technical training.

All observers of present-day Russia say: "Everyone is studying in the U.S.S.R., young and old." An acute thirst for knowledge has been awakened among the people since they have come to realize that knowledge opens greater opportunities in life. Laboratories, electric power stations, the university, and the academy are the dreams of many young workers and kolkhoz peasants. And in the Russia of today that dream often becomes a reality. The government, the local Soviets, and the trade-unions have created an enormous number of scholarships and encourage in every way the advance of talented youth from all walks of life.

The Revolution, the elimination of distinctions of class and nationality, the rise of the cultural level and the systematic education which the younger generation is getting in the Soviet schools have inculcated in the widest circles of the population a national self-consciousness and a civic patriotism which has found such striking expression in the heroic defense against the German invasion.

But side by side with these positive achievements are others of a negative character. Education has been widespread, amounting almost to an elemental flood, but the quality of that education, its depth and character give rise to grave doubts. Most of the elementary and high schools are poorly organized and impart but little knowledge to their students. The institutions of higher learning turn out inadequately trained people. Physicians graduated in the Soviet period are inferior to those of the pre-Soviet days. Scientists frequently lack solid and systematized knowledge. Specialists often prove to be incapable of independent work. Even in the technical field, among the young engineers, there are many who easily give in to the demands of the authorities that they "break down scientific work standards" but are little capable of the constructive, creative work called

for by the immense scale of Soviet industry. It was no accident that the most responsible tasks of construction under the five-year plans were entrusted to old Russian engineers, the generation that was nearing the end of its active life, or to foreign experts.

The forced rise of the level of productivity and the radical reconstruction of the country call for diversified, independent, scientific, creative work, whereas the whole Soviet atmosphere encourages practical training, and scientific research is tolerated only to the extent that it does not run counter to the policy of the dictatorship.

There is a strong urge toward science, culture, and creativeness among the youth. The new conditions, brought about since the Revolution, offer wide opportunities to satisfy that urge. But the thorny path leading to the institutions of higher learning through party and government committees sorting out first "those promoted from the ranks" (i.e., workers or peasants released from their regular work for study) and then the control exercised over their ideas at the university, teach the majority of Soviet students to check their spiritual quests. The government appropriates large sums of money for the establishment and maintenance of scientific institutions, but it keeps a tight rein on its scientists, subjecting their work to control and ruthlessly cutting short anyone daring to run counter to the philosophy laid down by the government.

Under the conditions prevailing during these twenty-five years, the mental outlook of the workers has changed. In capitalist countries, including pre-Soviet Russia, the workers more than any other elements of the population were inclined to resort to revolutionary methods. But the younger generation of workers, brought up under Soviet conditions, knows nothing of collective, revolutionary methods of struggle. The trade-unions have ceased to be militant organizations. The class psychology of the Soviet workers is distorted by the chasing after records, Stakhanovism, and the striving for promotion from the ranks. The worker does not have before him a personal antagonist—the boss, he has a government which ostensibly represents the interests of the

people as a whole, though it is frequently personified at the factory by a bureaucratic superintendent.

The enormous size and abundant resources of the country, the rapid economic advance, and the efforts to build a new system of society and skillful education have created a widespread spirit of patriotism ready for sacrifice. But a critical, independent attitude toward great political and social problems has been suppressed. The school, the press, repressions, have gradually killed the ability to seek the fundamental causes of the seamy side of Soviet life. Criticism is permitted only with respect to "minor defects of the mechanism." A heightened interest in the social and political conditions and customs of other countries is combined with ignorance or a distorted knowledge of actual life in the rest of the world.

A considerable part of Soviet youth accept without criticism all that is dinned into them by Communist propaganda, surround the leaders with a mystic adoration, and leave the determination of the policy of the nation to them. The young people turn their searching minds and energies to their studies and later to their professions; the most adventurous natures among them dream of flights to the North Pole, of expeditions to Pamir. Some embark on individualistic quests, religious mysticism, or anarchist revolt.

The new demands made upon the people by the tremendous tasks of building up the national economy day by day widen the gap between the required level of knowledge, education, culture, and psychology and their actual state. In the name of preserving the gains of the Revolution and strengthening the national economy, the people in their daily life are exhorted to seek ways of eliminating the antagonism between the government and the interests of the population. They are confronted with the problem of dictatorship.

From what has been said it should be clear that during the years of the five-year plans culture has spread rapidly and flourished luxuriantly, but in quality it frequently left much to be desired. Psychologically the great bulk of the population is far from any desire for a restoration of the socio-

economic order of the past, but it has not acquired the psychology of Socialist citizens.

But what is most important is the contradiction between the economic level that has been attained and the political background that has developed in the U.S.S.R. An economy developed outwardly along socialistic lines and political methods which resemble those of Fascism, the order which is inherently inimical to Socialism. That contradiction is the retribution for the coercive methods of socialization, for the forced tempos in the creation of the prerequisites of Socialism.

The dictatorship forced economic development. It was impelled to adopt such tempos by its urge to strengthen the Soviet order and secure its capacity for national defense. The growth of productive forces by such methods, i.e., at the cost of starvation among the people and at the cost of failure to satisfy the most vital daily needs of a population which had just gone through a revolution, could be accomplished only under a dictatorship. That is the historical explanation for the dictatorship. The dictatorship has achieved indisputable economic gains but it has shackled all the civic life of the nation in a vise of terror, and has thereby created a wide gap between the national economy, prepared for a Socialist order, and the chained initiative of the workers. Under conditions of organic development a Socialist economic level would inevitably have created forms and manifestations of democracy. Russia is paying for extraordinary tempos by a warped domestic policy and by a distortion of all its civic life. Depending on the source of the opposition, the dictatorship brought its terror to bear either on separate groups or on the population as a whole. For a long time the main object of repression was the peasantry, while the workers were in the privileged position of a ruling class. But as the dictatorship outgrew its revolutionary character, and as the period of "original Socialist accumulation" of capital for the purposes of industrialization and defense came to a close, the dictatorship began to set itself the task of self-preservation, and with increasing frequency came to oppose the revolution and continued to exist in order to prevent

a change from dictatorial to democratic methods of government. Instead of being a factor advancing the revolution, the dictatorship turned into a regressive force preventing by distorted and violent methods the political and spiritual life of the country from recovering and adjusting itself to the social aspects of its economic order.

The people have paid a heavy price for the tempos and methods of socialization—after a quarter of a century of revolution a one-man dictatorship is entrenched in the U.S.S.R.

This analysis of the state of Russia after three five-year plans shows that its economic and social conditions are at a sufficiently high level for the building of a Socialist order. More than that, they are in many ways comparable to the first stages of a Socialist society. On the other hand, the cultural and psychological factors have developed in a direction that is hardly favorable to the difficult struggle for Socialism, which calls for sacrifice. As for political conditions, the existence of a one-man dictatorship, which kills all initiative and free creativeness, creates serious obstacles to development in the direction of Socialism.

The question, whether the economic and social system that has developed in present-day Russia is a Socialist one, may be approached through still another set of criteria.

According to the authors and theoreticians of Socialism, the basic and most important traits of a Socialist order which distinguish it from a capitalist order are: the abolition of private ownership of the means of production and their socialization, the elimination of social inequalities and of the division of society into exploiters and exploited, and a planned self-governing management of economic, cultural, and government institutions by the people themselves.

If we analyze the Soviet regime from this point of view we must come to the following conclusions:

Private property has indeed been abolished, but instead of the means of production being socialized they have merely become state property. The management of the national economy as a whole and of individual industries and enterprises is not in the hands of organized, elective economic

organizations nor of self-governing workers' co-operatives, but of the bureaucratic apparatus of the state. The economic policy, the scale of production and price of the products, the form of management, wage rates and factory regulations—all are decided by government bodies without participation or control by the workers.

While the socialization of the means of production is the chief and indispensable condition of a Socialist economy, nationalization of production is always in danger of becoming a far from progressive factor when the government is based on dictatorship. The nationalization of production in that case serves merely to strengthen the bureaucratic government enormously, and greatly complicates all the chances of the working class in the struggle for democracy and the right to control the national economy.

Private capitalists no longer own the means of production, the basic exploiting classes have been abolished. But the workers have not become the masters of the tools of production. They neither manage them themselves nor through their representatives—their role in the economic process continues to be that of selling their labor power, of hired men working for wages.

New possessing classes have not yet developed in the U.S.S.R. There is no social group that has rights of ownership either over the tools of production or over profits. However, in the last few years two processes could be observed which are developing unquestionably in the direction of the creation of new social inequalities.

In the first place, that social stratum which personifies, represents, and sometimes even takes the place of the government has assumed definite form. That is the upper crust of the party and Soviet bureaucracy. It is this group which, while it does not as yet own the means of production, arbitrarily disposes of them, determines the share of the working class in the national income produced by its toil, and decides in what amounts and for what purpose the accumulated national savings shall be used. Such a position in production gives this group great powers which set it apart from the general mass of the population.

At the same time, as we have pointed out, the process of economic differentiation among the industrial and the white-collar workers in the city and the kolkhoz peasants in the country has been growing from year to year. We refer not to certain natural differences in pay among workers of various skills, but to a matter which has in recent years become typical of the conditions of workers in the U.S.S.R. and which causes such widespread dissatisfaction: at the same time that the great mass of workers receive meager pay, there are certain categories of workers, and especially officials, who receive enormous salaries far exceeding their needs and sometimes twenty times as great as those of their fellow workers. The Soviet system does not permit the acquisition of wealth by means of the exploitation of hired labor—therein lies the tremendous social strength of the U.S.S.R. But there is no economic equality and not at all within the narrower range that would prevail in a Socialist order. Economic inequality in the U.S.S.R. is so great, so unjustified, that it frequently resembles the social inequality of capitalist countries. This inequality is manifested in the manner of living of these privileged groups—good apartments, automobiles, country homes, valuables, jewelry—and the way their children are brought up.

In the U.S.S.R. the profits of industry go into the treasury of the government enterprise and then are disbursed for various requirements of national economy. The profits do not directly enrich any particular group of the population. But the government bureaucracy, industrial management, and the operation of the network of distribution are so costly and frequently so mismanaged, that the amount of the national income not used for socially useful purposes is great.

There are no owners of enterprises or of the tools of production. That is one of the great social gains of the Revolution. But to this day many thousands of economically superfluous bureaucrats, and sometimes outright parasites, in thousands of ways through the government apparatus deprive the workers of their share of the value created by them. The part of the national income thus extorted from the work-

ers is not large relatively, it is many times less than the usual expenditures of the nonworking social strata of capitalist society, but the existence and growth of such phenomena show that the trend toward economic inequality has taken root.

The dictatorship has deprived the masses of all opportunities of independent participation in the management of industry, it has created a situation in the country in which there is not the slightest hint of public control, no possibility of fundamental criticism of the general policy. An economic system of the Socialist type, i.e., a socialized economy, can develop only when communal life is not shackled, when the labor and the creative spirit of the people are free.

We see that the economic system that has developed in the U.S.S.R. has eliminated many of the fundamental traits of capitalism, but it does not satisfy many of the most important requirements of a Socialist order.

How, then, shall we define the existing system? What is its essence? What are the trends of its development?

Since the Soviet system obviously cannot be regarded as one of private capitalism, while, on the other hand, the nature of its regime and of the life of its people does not warrant its being considered a Socialist system, there have appeared in recent years numerous attempts to characterize the Soviet system as a special one, neither capitalist nor Socialist. Let us consider the two most widely held theories. We cannot give an exhaustive account or analysis of these theories, but will acquaint the reader with their main points. One of them considers that the system existing in the U.S.S.R. is that of state capitalism. There is no capitalist class, but its functions are carried out by the state through the government and party bureaucracies. The essence of capitalism is manifested in the fact that the exploitation of hired labor remains the same as under a capitalist economy, while the profits of industry are in a large measure at the disposal of the bureaucracy.

The other theory considers that what has developed in the U.S.S.R. is a distinctly new system, as in Germany, which has not yet been studied from an economic or sociological point of view, a system of totalitarian economy. This system

is not socialistic, since it is based on the exploitation of labor and on a denial of freedom of the spirit to the workers, but neither is it capitalistic, since it abolishes all capitalist forms of ownership, the disposal of products, management of industry, etc. This new, third system of economy is based on an unlimited extension of government interference in all directions, not only in the economic but in the political, cultural, and daily life of the people.

The first theory evokes serious objections. The U.S.S.R. lacks the most distinct features of capitalism, there is no capitalist class, no merchandise or market in the scientific, economic sense of the terms, no business profit. To call an order lacking all these traits capitalism, even state capitalism, serves only to confuse ideas rather than to clarify them.⁴

The second theory likewise fails to stand up under serious criticism. Aside from the fact that it combines under one heading, merely on the strength of external similarities, two regimes differing so widely in their social essence as those of Germany and the U.S.S.R., it merely describes phenomena and features of the order instead of explaining them. It correctly notes the totalitarian character of the order in Germany and in the U.S.S.R., but it makes no attempt to make any kind of serious analysis of the character of the economic systems of those countries or their differences from capitalism and Socialism.

What economic or social features give this order a new character? What kind of new classes does it have, and what are their socially useful functions in production? Are there, in that order, such elements as property, capital, merchandise, the market, prices, etc., and if there are, then what is the special role which these elements play in the totalitarian order which distinguishes them from those in the capitalist and Socialist systems? The authors of this theory of a third, totalitarian order give no answer to any of these questions. Proposing to study only the basic features of a totalitarian

⁴ There are grounds for calling such an order as that of Nazi Germany state capitalism, since there all the foundations of capitalism have been preserved, while the government has the functions of a corporate capitalist in relation to many enterprises, and plays a dominant role in relation to the economy as a whole.

economy, the authors of this theory have assumed in advance that it is a new order, a "third socioeconomic system."

We think that a thorough study of Soviet actuality must lead to the conclusion we have reached as to the nature of the Soviet order.

We are dealing not with a new, definitely formed order, but with a political-economic system in a state of transition. As we have shown before, there are contradictory features in the Soviet system, many essential features of a Socialist character and not a few of a capitalist order. This inconsistency does not permit a conclusion as to the triumph or establishment of either a Socialist or a capitalist order in the U.S.S.R., but neither does it give any grounds for speaking of the creation of a new "third" order. It is necessary to state things as they are. The basic economic and social elements of a capitalist order have been in the main eliminated, but they are still struggling for their existence and restoration, such as the market economy, economic inequalities, and so on. Important social and economic bases for a Socialist order have been established, but they are still mixed with elements of a market economy and private economic order; they have not as yet been consolidated and are in great danger of having to retreat.

A system of state economy prevails in the U.S.S.R. This system has not yet crystallized either as a system of the Socialist order or as a capitalist system, or as a system of a new order, because, as pointed out above, economy, classes, the relations between the classes, and production have not as yet assumed definite forms.

It is now a quarter of a century that this order has been developing, first in the direction of the creation of economic prerequisites of Socialism and later of separate elements of Socialism. But it cannot be definitely said that it will necessarily develop into a Socialist order, because the role that the dictatorship plays in it is tremendous. In recent years the dictatorship has not only not aided the ripening of the political, cultural, and psychological factors so necessary to the strengthening of Socialism, but, on the contrary, has obstructed that process. It is working not toward the de-

velopment of a workers' democracy, nor toward self-elimination, but for the perpetuation of the regime of one-man dictatorship and the destruction of any sprouts of a free life.

On the other hand, the international situation, especially since the outbreak of the second World War, is such that the fate of the U.S.S.R. depends greatly on the form political and economic conditions will assume in the whole world, and particularly in Europe. If as a result of the war the decrepit capitalist order will be succeeded by other economic systems, either through revolution or by an evolutionary process, the necessary prerequisites may then develop for a change and the assumption of a definite form by the Soviet order.

A nationalized economy without democratic management is in constant danger of degenerating into one form or another of Fascism or Nazism. But a nationalized economy functioning under democratic conditions is a Socialist system.

If it is the fate of the world, and Europe in particular, to live through a period dominated by Hitlerism, then Russia, after a bloody destruction of the Soviet government and the present heads of its economy, will have to go through the stage of a Fascist economic and social order. A centralized nationalization of all aspects of economy without any elements of democracy, and with all the social forces of the nation dispersed, creates a favorable soil for the dominance of the totalitarian methods of Fascism.

But if, as we believe, widespread revolutionary movements will begin in the occupied lands in the course of the war and the weakening of Germany, if, within Germany also the sharp discontent of the lower social classes should break through, if the war ends in a radical social and economic transformation of Europe, the dictatorship in the U.S.S.R. will be outgrown, and then the Socialist elements existing in its socioeconomic framework will develop and grow strong.

The U.S.S.R. is now at the crossroads. Even at the time of its greatest isolation it was a mistake to think that its economy could develop unaffected by the economy of the rest of the world. Now that the U.S.S.R., because of the war, finds herself engaged in a savage struggle with the political

and economic aggression of some governments, and in an ever firmer military and economic alliance with the democracies of England and the United States, its future is most closely dependent on the future of the principal countries of the world.

The war and the degree of activity of the working class and the democracies of the whole world will determine the question of the character of the future socioeconomic systems of the whole world, including Russia.

In the event of victory of the democratic countries over Hitlerism, Russia will be a tremendous supporting force for the trend toward a social change by the workers of all the nations of the world. But especially after the ruin and destruction which will in such great measure be visited upon her, Russia, without real political and material aid from other lands, will not be able to strengthen her economy and transform her country into a genuine Socialist democracy.

CHAPTER THIRTEEN

THE TEST OF WAR

THIS book comes to an end at a time when a gigantic struggle is going on between the motorized brigades of Nazism and the Red Army of the U.S.S.R.

On the outcome of this struggle depends the future of the Soviet Union and of the entire world.

The strength of the Soviet economy, the social stability of the regime, the inner bond between the many nationalities of the Union, the citizens' readiness for self-sacrifice, and the effective ability of the population to defend their country from ruin and slavery are being tested in a terrible struggle. The first months of the war have confirmed the correctness of our analysis. The war has exposed not a few weak spots in the economy and organization of the U.S.S.R., but it has also shown what great achievements have been attained by the Soviet through nationalization and the five-year plans, and it has revealed how highly the people value the social gains they have attained in spite of their incompleteness and imperfection.

Wherein lies the force of resistance, what are the roots of the Soviet Union's ability to defend itself?

"This war is not comparable to the war of 1914-1918. It is impossible to resist the onslaught of Hitler's armies. When thousands of fire-breathing, howling, steel monsters move across hills, rivers, and concrete barriers, destroying houses, crushing people, a deadly terror seizes even the stanchest soldiers and in frenzied panic they seek safety in flight." Such were the confessions of soldiers from the Belgian and French armies after the battle in Flanders in 1940.

No one can predict the outcome of the titanic battle now raging over the entire length of the vast Russo-German front. No one can foresee all the changes in the fortunes of war. But one fact is beyond doubt and has been written indelibly into the history of the present war: under the onslaught of Hitler's armies the Red Army did not collapse, did not scatter in panic flight. In the past months it has retreated, but in that very retreat it has, with a steadfastness that has amazed the world, defended itself against fire-breathing tanks, against the storm of artillery fire, against panzer divisions, against the withering fire from planes. It has proved itself strong enough to withstand the lightning blows of Hitler's motorized hordes—blows unprecedentedly powerful, intense, and prolonged. It has shown itself capable of resistance with a force Hitler had not met in his triumphal march over Europe. No matter how the succeeding stages of the Russo-German War turn out, that fact cannot be erased.

It would of course be a great mistake to attempt to determine the "war potential" of the U.S.S.R. by a simple calculation of the number of tanks, cannon, machine guns, planes, bombs, and shells on hand and those capable of being built. It must be taken into account that its military equipment, even if it is the same in quantity, would hardly be equal in quality to Germany's. The necessary allowance must be made for the quality of Soviet production, for the state of Soviet transportation, for the inexactness of Soviet plans, and for lack of co-ordination in the Soviet command. Not a little has been written about it in this book. All this was present before and naturally did not disappear upon the declaration of war.

Anyone who proceeds from a mere estimate of the military equipment of the two warring sides, even if it be the most accurate estimate, will frequently be unable to explain certain defeats of the Red Army which have already taken place, and of which, alas, there will probably be not a few in the future. The lack of experience in strategy on the part of the command, bottlenecks in supply and transportation, lack of precision in the work of the administration, and lack of experience under fire of the Soviet soldier make inevitable

the blunders in command, lack of co-ordination in military supply, reckless, unwarranted attempts to storm the enemy.

Still, despite all these unavoidable defects and blunders, the Red Army has already proved its capacity for a stanch, not only heroic but skilled, active, and successful conduct of war. It proved to have been equipped with Russian tanks and planes of good quality and to be supplied at the right time with the necessary ammunition, fuel, and food. Soviet Russia has good grounds to count on an eventual victory in this gigantic battle of machines and peoples—if, of course, England and the United States give her timely and active aid; but after all, no support was of any help to those who proved incapable of defending themselves.

It is possible to understand and explain the Soviet Union's capacity for defense even against Hitler's blitzkrieg, which has already been established beyond a doubt, only by taking into account those decisive changes in Russia's economic and social structure which have taken place during the past quarter of a century. And yet there were not a few politicians and economists who maintained on the eve of the war that the U.S.S.R. had no decent military equipment, that Soviet planes were incapable of sustaining even a few hours of flight, that the armor of Soviet tanks was like roofing-iron, that the Red soldiers wore shoes with cardboard soles, and that in general "the Soviet government was engaged in building things as useless as Egyptian pyramids"; that "all the billions spent on industry and defense were sheer waste of the people's money" and that therefore Hitler would break down the resistance of the Red Army in a week.

The events on the military front and, therefore, on the economic front have conclusively demonstrated how erroneous was this appraisal of the strength of Soviet Russia. Of course, it would be a mistake not to take into account the inevitable hitches, confusion, and inefficiency in estimating the Soviet war potential. But it would be impossible to account for the striking manifestation of the might of the Red Army in its valiant fight against Hitler's motorized divisions unless one realizes that with all its defects and sins of super-industrialization there were created in Soviet Russia during

the years of five-year plans great industries producing steel, nonferrous metals, oil, rubber, tanks, planes, locomotives, war equipment and ammunition.

It was right and necessary to criticize the Soviet government for the methods and tempos of superindustrialization that taxed and exhausted the population, for poor organization of industry, for the needlessly high costs of the bureaucratized Soviet economy, for the state to which the workers were reduced in industry, for the policy pursued toward the peasants. But this criticism can be convincing only when it comes from one who does not deny the fact of the rapid industrialization of the country, who does not shut his eyes to the growth, year by year, of the metalworking plants, huge mines, and new industries producing war equipment.

In appraising the comparative fighting capacity of Germany and the U.S.S.R., the important fact must not be ignored, that in 1940 the Soviet Union nearly equaled Germany in the production of steel, exceeded her output of most of the nonferrous and rare metals, and that the U.S.S.R. has an abundance of petroleum and other war materials of which there is such an acute shortage in Germany.

The same is true with regard to agriculture. Those who hold that the existing kolkhoz system predetermines an insufficient production of food supplies in times of peace, and still less in wartime, will have one opinion as to the course and outcome of the war; while totally different criteria in weighing the prospects of the war will be applied by those who have always maintained that it was precisely the kolkhoz system that ensured high agricultural production and that the shortage of food among the population, including the peasants, was due to the government's taking the lion's share of the kolkhoz products to lay in large stocks of supplies—chiefly in case of war.

However, no matter how high one may be inclined to appraise the industrial and war potential of the Soviet Union, the physical factors alone are not sufficient to form a reliable basis in weighing the chances of victory. For, in quality and quantity of war equipment, in perfection of her war organization, and in ability to manage her war machine, especially

in forcing all conquered Europe to work for her, Hitler's Germany stands far above the Soviet Union. But the Soviet Union is strong in an inexhaustible store of fighting and defensive potentialities of a different order which, moreover, possesses the miraculous property of growing as the threat of defeat increases.

The course and outcome of the war are by no means determined by planes and tanks alone. In a conflict between war forces of more or less equal strength, tremendous, one might say, decisive, weight must be given to imponderable factors which cannot be expressed in figures and statistics. Of course, in the revolutionary war in Spain, the question was settled by the tanks and planes of Mussolini and Hitler, as in the case of Italy's war against Abyssinia—the disproportion in material forces was too glaring. But it can hardly be doubted that the whole course of the present war would have been different if, in the France of 1940, with the same number of tanks and planes, the military command had not been pro-Fascist, if the political leadership had been imbued with a definitely anti-Hitler spirit and the broad masses of the people had been inspired by a great cause moving them to sacrifice and deeds of heroism.

The U.S.S.R. has tanks and guns. But will the Russian workers and peasants be willing to burn in those tanks, die at those guns, perish by the tens and hundreds of thousands at the fronts, in the sultry heat of the south and the numbing cold of the north?

In the past months, in the steppes of Bessarabia and the Ukraine, in the Pripet marshes, by the lakes of Karelia, hundreds of thousands of peasants and workers have already perished in battle. They died heroically. They fought as only those fight who know for what they die. They were willing to die. But were they dying for Stalin?

It may be said that Russian workers and peasants are fighting because patriotism has awakened in them, an ardent love for their fatherland, a determination not to yield it to spoliation by Hitler.

Yes, patriotism is a powerful emotion, capable of moving people to great heroism. But not patriotism of the "geo-

graphic," everyday variety. That kind of "love of fatherland" was not able to hold at the front the scattering Russian Army in 1917; it was not able to inspire the French Army to prolonged, stubborn resistance in 1940. In order to fire millions of people with a great passion for a battle to the death, to inspire them to great deeds, that patriotism itself must be imbued with great social passions and high aims for which millions are willing to fight and willing to die. The "potential" of these imponderable factors can play a tremendous part in this battle between armies of millions. It has always been so. It is so especially in our time of exceptionally sharp social conflicts and social passions.

The workers and peasants of the Soviet Union are doggedly resisting the enemy and dying by the thousands. That means that they know, feel, sense that they have something in their country to defend, to die for. That means that they know, feel, sense what they are fighting for and what they are fighting against.

The workers of Russia are battling against a return of private economy, against being returned to the bottom of the social pyramid, against the restoration of that economic order which would doom them and their children to unemployment, cheerless toil, hopeless privation, and humiliation. The peasants wage a dogged and active battle against Hitler because with Hitler would return the old landowners or landowners made over on a new Prussian pattern, and poverty and arbitrary rule would once more come down with crushing weight on the Russian countryside. The numerous nationalities that make up the Soviet Union fight against Hitler because they know that Hitler destroys all possibility of their development and that of their national cultures. And, finally, all citizens of the Soviet Union go to the front to fight determinedly until victory is won because they want to defend those undoubtedly tremendous—even though inadequately and insufficiently realized—revolutionary achievements in all fields of labor, culture, science and art, which they want to multiply and develop but which they do not want to give up to Fascism to be torn and destroyed.

Many and great are the grievances and demands that the

workers, the peasants, the various nationalities, and all the citizens of the Soviet Union bring before the dictatorial government of Stalin, and not for a single day does the struggle for these demands cease. But at present above everything there stands before the people the task of defending their country against the enemy who personifies social, political, and national reaction.

The workers of the Soviet Union fight with such enthusiasm and heroism against Hitler because both instinct and experience tell them that in fighting Hitler they fight not only against Nazism but also for their hopes, for the realization of the demands they make upon the Soviet government for a better life for themselves and their children, for a free union of free peoples.

Without the elimination of Hitler there can be neither a restoration of free labor organizations in all Europe nor the rise of a powerful free labor movement whose creative and revivifying forces will give the opportunity for the working class of the Soviet Union as well, to restore freedom and independence to itself. Without a victory over Hitler in the Russo-German War, the fundamental problem of present-day rural Russia,—of changing the kolkhoz from a bureaucratic government organization to a free peasants' co-operative,—cannot be solved. Without a victory over Hitler, the personification of oppression, irresponsible rule and violence, the regime of dictatorship and the lack of freedom in the Soviet Union cannot be replaced by a free, organized democratic regime.

On the anti-Hitler front the population of the Soviet Union is fighting against Nazi coercion, for its revolutionary gains and for the realization of its aspirations for political freedom and social equality, awakened by the Revolution and not stifled to this day. And only this social-revolutionary spirit of the Soviet fighters can make those tanks and planes, guns and rifles, which they aim at Hitler, into actual weapons of victory over Nazism.

The war does not do away with the struggle for the democratization of the Soviet regime, but it inextricably intertwines that struggle with service in the cause of defense,

subordinating it in the interests of preparing a victory and in turn making that victory a tool in the struggle for democracy.

Of course, if the Soviet Union should be obliged to wage the war alone, if, for one reason or another, England and the United States should fail to render the necessary aid, if Germany should crush the open or secret resistance of the population in the subjugated lands and should force all the factories, shipyards and mines to work for her armament, then the Soviet Union, the land of revolution, might also be crushed by material and military superiority. That would be a catastrophe for many generations.

History at the moment is giving well-grounded hopes for victory over Hitler's aggression, hopes based on the heroic resistance of Russia with the support of the democracies. So far Russia's resistance gives hope for a struggle ever growing in intensity against the threatened slavery.

The great but still unfinished experiment of building an economy according to plan and without private ownership, the great but still unfinished attempt at building up a "new life," is at present undergoing the most terrible ordeal: the ordeal of war.

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